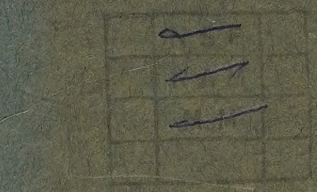
REPORT

on the working of the

DEPARTMENT OF AGRICULTURE

for the year

1967



MALTA
DEPARTMENT OF INFORMATION
1968

Price 3/6

DEPARTMENT OF AGRICULTURE,
93, Archbishop Street,
Valletta.

17th April, 1968

Sir,

I have the honour to transmit to you herewith my Report on the working of my Department during 1967.

I have the honour to be,

Sir,

Your obedient Servant,

(A.S. FARRUGIA)
Director of Agriculture &
Fisheries.

The Honourable
Minister of Trade,
Industry and Agriculture.

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STAFF LIST OF SENIOR OFFICERS AS ON 31st DECEMBER, 1967

Administrative & Executive Officers

Mr Anthony S.Farrugia, B.Com., B.Sc.Econ.	-	Director of Agriculture and Fisheries
Mr Edward H.Camilleri	-	Senior Administrative Officer
Mr George Portelli	-	Administrative Officer
Mr Edgar Causon	-	Higher Executive Officer
Mr Carmelo Spiteri	-	Higher Executive Officer
Mr Carmel Callus	-	Higher Executive Officer
Mr Joseph Cardona	-	Higher Executive Officer
Mr Alfred Cilia	-	Executive Officer
Mr Caesar Scerri	-	Executive Officer

Technical Officers

Dr.Andre'Cassar,B.Sc.,B.V.Sc., M.R.C.V.S.	-	Principal Govt.Vet.Surgeon and Director of Govt.Vet. Services
Mr S.J.Zammit,F.R.H.S.	-	Principal Technical Officer
Mr J.Debrincat	-	Senior Agricultural Officer
Dr.Gerald J.Peralta, D.Sc. (Agric.)	-	Plant Pathologist
Mr George Cousin	-	Supt.of Public Gardens and Plantations
Mr Joseph Frendo	-	Chief Fisheries Officer
Mr C.Galea Enriquez,B.A.,M.Sc., F.R.Econ.S.	-	Agricultural Economist
Mr A.Scicluna Spiteri,B.Pharm., B.Sc. Agric.(Durham), M.Sc., (Soil Sci.)(Durham),F.R.M.S.	-	Agricultural Chemist
Mr Edward Ebejer Slythe,C.D.A.,	-	Senior Agricultural Officer
Mr Francis Portelli, B.Sc. (Hort.),B.Pharm.	-	Horticulturist
Mr H.Galea Souchet,B.Sc.,(U.C.D.) M.A.S.E.,M.A.S.H.S., M.I.S.H.S.	-	Viticulturist & Oenologist
Mr Joseph Debattista, N.D.A. C.D.A.,N.D.Agric.A.M.I.Agr.E.	-	Superintendent of Government Farms
Dr.Frank Cassar, D.Vet.Med.	-	Government Veterinary Surgeon
Dr.Lawrence Caruana,B.Sc., B.Pharm.,M.V.B.,M.R.C.V.S.	-	Government Veterinary Surgeon
Mr John L.Bonnici, B.Pharm.	-	Junior Agricultural Chemist
Mr Clive Simpson,N.D.A.,C.D.A.	-	Agricultural Officer
Mr Dominic Sultana,N.D.A., C.D.A.,N.C.P.,C C.P.	-	Agricultural Officer
Mr Saviour P.Camilleri,C.D.A.	-	Agricultural Officer
Mr Joseph Buttigieg, C.D.A.	-	Agricultural Officer
Mr Peter Calamatta, C.D.H.	-	Agricultural Officer
Mr Victor Rossignaud	-	Agricultural Marketing Officer

Advisor

Mr Thomas E.Ryall,B.Sc.(Agric)	-	Chief Agricultural Advisory Officer

F.A.O.Experts

Mr Godfrey G.Alton, B.Sc., M.R.C.V.S.	-	Veterinary Bacteriologist
Mr Robert W.Crowther, B.Sc., M.R.C.V.S.	-	Animal Health Officer

U.N.D.P./F.A.O. Horticultural & Demonstration Project

Mr Giovanni B.Mazzocchi	-	Project Manager
Mr Guy Spoiden	-	Greenhouse Management Technician
Mr E.Collingwood	-	Plant Protection Specialist
Mr R.Siddall	-	Greenhouse Production Specialist
Mr Eric Le Tissier	-	Greenhouse Management Technician
Miss Karen A.Madsen	-	Strawberry Expert
M.Rene Martinez	-	Veg.Flower and Seed Production Expert

Italian Veterinary Surgeons

Dr.Clodoveo Capitoli	-	Veterinary Surgeon
Dr.Vincenzo Agamennone	-	Veterinary Surgeon

CHAPTER I

The Department of Agriculture, Fisheries and Co-operatives

A. General

This year was the fourth year of the Second Five-Year Development Plan and the schemes that had been approved for implementation were in full swing.

The funds allocated for the current financial year amounted to £250,106 for Agriculture and £84,008 for Fisheries.

The following four schemes were completed by early 1967, namely:-

a) Animal Vaccination Scheme
b) Improvement to public gardens
c) Improvements at Marsaxlokk and
d) Dredging of inner part of Marsaxlokk

Horticulture continued to receive the close attention it merits and the benefits, accruing thereto from the F.A.O. Horticulture Demonstration and Training Scheme, are proving to be, as expected, a considerable boost to the development of the industry. Much progress has been achieved and the results attained are of a permanent nature.

The policies, followed both in agriculture and in fisheries, reflect Ministerial directives.

B. Divisions of the Department

For administrative exigencies, the Department is divided into five main branches as follows:-

1. Administration (including Finance)
2. Agriculture
3. Livestock
4. Marketing
5. Fisheries

This type of organization is based on that of the F.A.O. which has been found by experience to work well and there is no reason why it should not do so in Malta.

1.Administration../..

1. Administration - The general administration of the Department is the responsibility of the Senior Administrative Officer who, in addition, implements the policies decided upon and directives issued by the Director of the Department. The Senior Administrative Officer also deputizes for the Director.

This Branch comprises the following Sections, namely:-

a) Finance including Expenditure, Revenue and Supplies
b) Registry and Records (under a Clerical Officer)
c) Personnel (under a Higher Executive Officer)
d) Information Service (under a Senior Information Officer)

The Finance Section is under the charge of an Administrative Officer assisted by two Higher Executive Officers and other staff.

2. Agriculture - During the year, Mr S.J.Zammit was appointed Principal Technical Officer to assist and advise the Director on all technical matters concerning agriculture and horticulture.

This Division comprises the following sections, namely:-

1. The Advisory and Extension Service under a Senior Agricultural Officer and a number of Agricultural Officers;
2. The Horticulture Section under the Horticulturist assisted by four Agricultural Assistants;
3. The Public Gardens and Nurseries Division under the Superintendent of Public Gardens;
4. The Afforestation Division under the Horticulture Officer;
5. The Government Farm and Stock Station at Ghammieri, Malta, under the Superintendent of the Government Farm, and the Station at Gozo under a Senior Agricultural Officer;

6) The Crop../..

6) The Crop Protection Section under a Plant Pathologist and Entomologist;

7) The Viticulture and Oenology Section under a Plant Pathologist assisted by a Viticulturist and Oenologist;

8) The Land and Water Use Section under the Agricultural Chemist assisted by a Junior Chemist and a number of Agricultural Inspectors.

3. Livestock - This is the responsibility of the Principal Government Veterinary Surgeon assisted by three Veterinary Surgeons and other staff. This Branch comprises:

a) the Veterinary Service;
b) the Diagnostic Laboratory under a Laboratory Technician;
c) the Brucellosis Laboratory under a Veterinary Bacteriologist.

The Principal Government Veterinary Surgeon is responsible for all animal health measures and for approving or otherwise all applications for the importation of livestock.

4. Marketing - The Agricultural Economist, assisted by an Agricultural Marketing Officer and an Inspectorate is responsible for this Branch, which watches closely over changes in the supply and demand of agricultural produce and animal fodder and endeavours to maintain a salutary equilibrium between these two variables. This Division is also responsible for the proper running of the various pitkali markets. The Agricultural Economist assisted by a Higher Executive Officer and an Inspectorate, is also responsible for the enforcement of the Co-operative Societies Ordinance and Regulations.

5. Fisheries - This Division is managed by the Chief Fisheries Officer aided by a number of Fisheries Officers and other staff. Its main object is to encourage local fishing folk to adopt more modern equipment and techniques. It also watches over and safeguards the interests of the fishing community and supervises the fish pitkali market where fresh fish is sold by wholesale.

CHAPTER II
AGRICULTURAL AND FISHERY DEVELOPMENT

The gradual progress in agricultural development which was reported in recent years was maintained during 1967 but, although the produce that passed through the Pitkali Wholesale Markets showed an increase in quantity and value, figures for exports show a decrease in value in all items with the exception of "Cut Flowers, Foliage and Plant Cuttings" and "Seeds and Bulbs" over the previous year. However, the total value of exports of agricultural produce for the years 1965/67 was higher by a million pounds over the two previous three-year periods.

The quality of our tomatoes and flowers was most favourably reported upon on the London Market but the competition there is becoming keener from year to year and unless and until exporters of our horticultural produce are assured of better air freight facilities to our traditional market, and eventually to new markets expansion in this industry is going to be difficult. Serious efforts to find other outlets for our agriculture produce must continue to be made.

Of major importance, during the year under review, was the report of the Joint Mission for Malta in July (Robens Report). In this Report, although industry and tourism were the principal concern of the Mission, yet agriculture was dealt with. The recommendations made are receiving attention in particular the recruitment of personnel.

The technical and financial aids extended to farmers and fishermen have resulted in increased and better quality crop yields and also in an improvement in fish catches following the gradual introduction of medium-sized vessels. Catches will improve further if our fishermen could be persuaded to go further afield and fish in other waters distant from our shores.

No../..

No significant shortage of any agricultural products was experienced except for some basic imported fodder items chiefly as a result of the Middle East Crisis and, later in the year, as a consequence of the devaluation of the pound sterling.

The poultry industry, which supplies all Malta's needs in eggs, showed signs of stability towards the end of the year when the restrictions on the importation of day-old chicks started to have effect. This restriction is also having a salutary effect on the industry in that the setting-up of hatcheries in Malta is being encouraged.

Valuable contacts with the United Nations Organization were maintained as in the past and valuable assistance was obtained from those Organizations.

The World Food Programme Sorghum Scheme continued in operation and the first modern piggeries started to be erected by the first group of beneficiaries under the scheme.

A Malta Government Delegation led by the Hon. Minister of Trade, Industry and Agriculture visited the F.A.O. Headquarters in Rome to attend the 11th Session of the Intergovernmental Committee of the World Food Programme.

Another delegation, again led by the Honourable Minister, attended the 14th Session of the F.A.O. General Conference in Rome and took part in all technical committees as well as at the Plenary Session which was addressed by the Minister.

CHAPTER III
EXTENSION SERVICE DIVISION

General

The Extension Service continued during 1967 its sterling work of advising and helping farmers and breeders to improve their management and to obtain better returns for their efforts. For this purpose Malta is subdivided into four districts, each under the responsibility of an Agricultural Officer.

The Agricultural Officers attended for one hour every morning at the Government Farm to assist the Superintendent of the Farm and receive farmers and breeders who desired advice.

This has enabled each Agricultural Officer to demonstrate to farmers in actual practice the various techniques which they have been preaching about and to show farmers the results obtained by adopting such techniques.

The Extension Service also organised a series of specialisted lectures at Ghammieri for farmers on Crops, Dairy cows, Pigs, Poultry and Rabbits.

During the year, seven farmers' meetings were held at Mensija, Burmarrad, Tarxien, Zurrieq, Zebbug, Rabat and Mosta at which discussions were carried out with farmers on topics relating to:

Tomatoes, potatoes, mulching, dairy husbandry, sorghum in pig rations, manuring and cereal growing.

Improved varieties of vegetable and crop seeds were distributed to farmers attending these meetings.

A drive was made to show farmers how to feed their pigs on a scientific basis in connexion with the distribution of subsidised sorghum donated by the United States of America and the Agricultural Officers kept in

personal../..

contact with the pig breeders who registered for Sorghum.

Sectional:

A large number of farmers continued to call at Ghammieri for help and advice during the year, and the Agricultural Officers made over 2400 visits to farmers on their farms to give advice and report on:

A. Request for loans and grants for:

(1) Erection of Pig Units
(2) Erection of Poultry Units
(3) Purchase of Rotary Cultivators
(4) Purchase of O.I. Equipment

B. Requests for Aid from Incentive Grants for:

(1) Repairs to Farmhouses
(2) Extension of Water and Electricity to Farmhouses
(3) Adopted farms

C. Advisory Visits in connexion with:

(1) Management and feeding of Dairy Cattle, Goats and Sheep
(2) Management and feeding of Poultry and Rabbits
(3) Crop Rotation and varietal improvements
(4) Manures and fertilizers

The whole concept of advisory visits is to teach the farmer and herdsman to acquaint himself with and to adopt modern techniques. In the field of dairy management, some of the subjects discussed were feeding of calves and milking cows, the improvement of the butter fat content of milk, the construction of calf pens, milk recording. In the field of Poultry Management emphasis was laid on the rearing and feeding of chicks and growers, lighting patterns for layers, disease control and systems of housing layers.

To help../..

To help the dry-land farmers obtain a better return from their land and provide them with a secure market, 2 tons of special Durum wheat seed of the variety Capelli was imported from Italy and distributed to 90 wheat growers in December. This type of wheat is particularly suitable for the macaroni industry and it is thereby hoped eventually to substitute imported macaroni wheat for local paste production.

CHAPTER IV

VETERINARY SERVICES DIVISION

The main activities of the Veterinary Services in Malta and Gozo fall under three main headings, i.e.:-

a) Activities in the Abattoir
b) Activities in the field
c) Diagnostic work

a) Activities in the Abattoir

The activities in the Abattoir constitute an essential public service in so far as they safeguard the health of the population. In fact, by law, all animals are slaughtered by Government butchers in the Abattoir and inspected by Veterinary Surgeons assisted by a qualified Meat Inspector.

The following animals were slaughtered in Malta and Gozo Civil Abattoirs:

(i) Slaughterings from 1st January to 31st December 1967

	Cattle	Equines	Pigs	Sheep	Lambs	Goats	Kids
Malta	9015	384	34049	4490	5236	5387	1836
Gozo	664	9	3048	148	774	103	484
Total	9679	393	37097	4638	6010	5490	2320

(ii) Weights in Rotoli

	Cattle	Equines	Pigs	Sheep	Lambs	Goats	Kids
Malta	2919624	85537	2912682	187954	48274	144654	8489
Gozo	234035	2455	302807	4823	7912	2790	2898
Total	3153659	87992	3215489	192777	56186	147444	11387

Diseases and other causes of unsoundness of meat detected in the course of meat inspection

Putrefaction

Putrefaction is one of the commonest causes of unsoundness of meat. During the year under review, 13 carcases were condemned as being in a state of putrefaction. This is explained by the fact that animals slaughtered as

emergency../..

emergency cases soon begin to decompose and putrefy especially during the hot summer months.

Tuberculosis

Only 1 carcase was condemned owing to generalised Tuberculosis. This figure does not represent the total number of tuberculous cows slaughtered during the year under review, but only one cow that was found affected with Tuberculosis during the routine meat inspection. All cows that are positive reactors to the Tuberculin Test are slaughtered on non-slaughtering days i.e. Tuesday and Thursday.

Civil Abattoir

The Civil Abattoirs are in a bad state of repair but steps were taken to bring consultants to Malta to advise on the building of a modern Abattoir.

b) Activities in the Field

Activities in the field consist in the Prevention, Control and Eradication of Animal diseases.

(i) Prevention

Every year, Malta imports about 7,000 head of store cattle, which are fattened from three to five months and then slaughtered. These store cattle supplemented by another 2563 local bovines, represent the total consumption of fresh beef in these Islands. This importation constitutes a serious danger of introducing some infectious or contagious disease. As the importation of meat on the hoof is unavoidable, the strictest precautions have to be taken before any consignment of store cattle arrives. In fact, unless the exporting country is totally free and has been free for several months from Foot and Mouth Disease no Import Licence is granted. By adopting these measures these Islands have been free from Foot and Mouth Disease and other infectious and contagious diseases for the last 22 years. These precautions are also essential for

various../..

various reasons:-

a) the size of these Islands, only 100 square miles does not permit of any strict isolation of any infected animal;

b) some of the cowsheds and most of the pig-sties are extremely difficult, if not impossible, to disinfect properly;

c) the control of any movement of animals would be an extremely difficult task.

All imported store cattle are landed at Zammit Dock where they are kept for 24 hours fasting period. Zammit Dock is not ideally situated for quarantine purposes as the former Lazzaretto Quarantine Station, but after various vain efforts in finding an ideal place, we had no other option but to accept, rather reluctantly, Zammit Dock as a Quarantine Station. The sheds are now completed but the encircling road, is not ready yet.

All cattle are examined immediately on arrival. They are kept under observation for another three or five days and again examined before they are released.

Horses are likewise examined for Glanders and Farcy and other infectious diseases on arrival and dogs and cats, imported from countries where Rabies is known to exist, are kept in quarantine for six months in Government Quarantine Kennels. The same period of quarantine is imposed on dogs and cats coming from Rabies free countries if they happen, during their journey, to have travelled through countries where Rabies exists.

ii) Control

In the past the most prevalent animal diseases were:- Bovines, Tuberculosis, Brucellosis, Mastitis and Enteritis in calves.

Swine:- Swine Fever, Swine Erysipelas and Enteritis in young pigs.

Caprines../..

Caprines:- Brucellosis
Poultry:- Fowl Pox and Respiratory diseases

a) Bovines

The control of Tuberculosis and Brucellosis will be explained under the heading 'Eradication'.

Mastitis in cattle is not as widespread as it was thought to be. However, as farmers have got into the habit of buying, without any prescription, intramammary penicillin and injecting it into diseased udders, irrespective of the type of bacteria causing the disease, we cannot have a true picture of the real incidence in cows.

To stop such a practice it is essential that the sale of intramammary injections should be prohibited without a Veterinary prescription. Now that the Veterinary Diagnostic Laboratory at the Civil Abattoir has been established, farmers are encouraged to bring their milk to this Laboratory to be examined before treatment is started. During the year under review a few farmers availed themselves of such facilities, but the majority did not. In agreement with the Manager, Milk Marketing Undertaking, steps were taken to start testing milk supplied to the Undertaking for the detection of antibiotics in the milk. As soon as such test is proved to be a reliable means of detecting antibiotics in the milk, farmers shall be penalised for the indiscriminate use of antibiotics and the sources of the supply of such antibiotics shall be traced and stopped.

For Calf Enteritis see Section on Veterinary Research.

b) Swine

For Swine Fever see Section on Veterinary Research.

Swine Erysipelas

This disease still exists in a sporadic form but its ill-effects on our pig population are mitigated by the fact that nowadays it is easily cured and whenever one pig dies of swine erysipelas, the rest of the pigs are

vaccinated../..

vaccinated in time and cured. Free vaccination of pigs against Swine Erysipelas is carried out by Government on a voluntary basis and 6861 pigs were prophylactically vaccinated against Erysipelas this year.

c) Caprines

The principal disease affecting goats is "Brucella Melitensis". The losses through abortion and reduced milk yield must be quite relevant, although our farmers do not seem to appreciate such losses as they occur gradually and only few goats abort every year. However, for the last eight years research work was carried out and is still being carried out, with a view to finding a suitable vaccine which will immunise goats against Brucellosis. Although the vaccination of female kids between three and six months of age is compulsory by law, yet only a small number of kids was vaccinated this year in Malta and Gozo. It is rather difficult tracing the kids and the herdsmen are not being co-operative in registering their herds.

d) Poultry - See Section on Veterinary Research.

iii) Eradication

The testing of cows for Tuberculosis and Brucellosis was carried out smoothly both in Malta and in Gozo without encountering any opposition on the part of herdsmen. All the bovines in Malta and Gozo were tested once with the Single Intradermal Test and those cows showing any positive reaction were again tested with the Double Comparative Test six weeks after the first test. Cows being positive to the second test are slaughtered forthwith and compensated for. The herds in which any cow or cows are found to be positive are tested more frequently.

With regard to Brucellosis, samples of milk are taken every three months from churns delivered at the Milk Collection Depots and subjected to the Milk Ring Test. If this test proves to be positive for any

particular herd, then milk samples from every individual cow in that herd is taken or, if any cow happens to be dry, then blood samples are taken. The milk is cultured and the blood is subjected to the Agglutination test and, in cases of doubt, subjected to the Complement Fixation Test.

During 1967, all the cows in Gozo were free from both Brucellosis and Tuberculosis, while in Malta 30 cows were affected with Brucellosis and 15 cows were positive to the Tuberculin Test. All these cows were slaughtered. The fact that only 45 cows were found affected with Brucellosis and Tuberculosis out of a total number of 6,000 cows shows that the present incidence of Brucellosis and Tuberculosis in Malta and Gozo amounts to only 0.5% and 0.25% respectively. These facts give us every reason to hope that by the end of the Second Five-Year Plan, Malta shall have achieved her aim, i.e. the eradication of both bovine Brucellosis and Tuberculosis from Malta and Gozo.

In Malta and Gozo, 5760 poultry were vaccinated against Fowl Pest and 77214 poultry were vaccinated against Fowl Pox by Government vaccinators whereas 6831 and 33372 pigs were vaccinated against Swine Erysipelas and Swine Fever respectively. Six thousand head of cattle were also tested at least once during this year and some of them were tested even three or four times. Each T.B. test of every herd involves three calls to the farm; the first time to inform the owner about the date and time of the test, the second call when the cows are tested and the third call 72 hours after the test to take the measurements of the skin.

On top of all this work, 1967 female kids were vaccinated with Elberg vaccine against Brucella Melitensis and over 700 goats were tested for Brucella Melitensis in Gozo. When one takes into account the facts that poultry, pigs and kids are scattered in every corner of Malta and Gozo, and that farmers are not always on their farms to help the Veterinary Assistants and thus a lot of time

is../..

is wasted, one must appreciate the excellent work done by the Veterinary Assistants.

With the compulsory vaccination of kids and pigs and the compulsory testing of cows for Tuberculosis and Brucellosis on top of the voluntary vaccination of poultry against Fowl Pox and Fowl Pest and the vaccination of pigs against Swine Erysipelas there are going to be periods of much overlapping of work necessitating more transport facilities.

Veterinary../..

Veterinary Research

There have been no major disease problems in any class of livestock during 1967. While this may be an eminently satisfactory state of affairs, it rather taxes the imagination to present it in a readable form.

During November, Dr. L.Caruana returned after graduating from Dublin University and commenced a period of training at the Diagnostic Laboratory and also at the Brucella Laboratory. It appears probable that he may be called upon to take over one or both Laboratories during 1968.

Two Veterinary Assistants have been selected for training in Artificial Insemination and it is hoped that they will go for a six weeks' training course in the United Kingdom during April, 1968.

Routine Diagnosis and Diseases

The volume of work has fallen off somewhat from last year. This has been due partly to a general low incidence of disease and partly because our poultry keepers are becoming more experienced. Most of them have learnt to avoid the pitfalls which troubled them earlier on and many have learnt to recognise the commoner diseases and by now know what to do about them without asking for advice. For this reason, as has been mentioned previously, comparative statistics of the incidence of the different diseases encountered would be grossly misleading.

During the past four years the total number of cases or outbreaks of diseases investigated have been:-

1964	1965	1966	1967
251	507	766	571

The figure for 1967 may be broken down to show the different species of animal concerned.

Poultry	Cattle	Pigs	Miscellaneous
331	66	143	31

The general tendency has been for an increase

in../..

in the load of work arising from swine diseases. This will probably continue.

The following general comments are made regarding our principal disease conditions.

A. Poultry

There were no outbreaks of Newcastle Disease during the past four years and it can now confidently be stated that Malta is free from this disease. It is worth mentioning that this state of affairs was achieved following the widespread use of live vaccine. Segregation and slaughter methods were not applied at any stage. Issues of live vaccines were discontinued in August, 1967.

As an antidote to complacency it should be recorded that Acute Marek's Disease came to Malta for the first time in June, 1967. As far as can be told, this outbreak has been contained if not stamped out but it is too early yet to be certain. The risk of introducing this type of disease has now been lessened because relatively few day-old chicks are now being imported.

Leucosis and Classical Marek's Disease are still quite common and the latter has recently shown signs of increasing. Apart from Coryza and E.coli infections, respiratory diseases have not been a serious problem.

Otherwise, there are no other poultry diseases which merit description here. It is worth noting that Vitamin deficiencies generally are much less common than they were a couple of year's ago. It would seem that locally manufactured compound rations are becoming more efficient. However, their feeding value is often doubtful although the basic requirements are defined by law.

B. Cattle

The campaigns against Brucellosis and Tuberculosis are described by the Principal Government Veterinary Surgeon. It is sufficient here to note that both eradication schemes are nearing completion.

The../..

The general impression about Mastitis remains the same, that is to say, the incidence is not very high and it is not associated with any one predominating bacterium. This is difficult to explain in the face of the low standards of management and hygiene prevailing. However, nearly all our herds are hand milked and this could well be a more important factor in controlling Mastitis than is generally credited.

Calfhood mortality, mainly associated with E.coli infection is still a cause of steady loss to the industry. Accurate statistics are difficult to obtain but the general impression is that some progress has been made during the past twelve months. The acid test of this will be in the number of locally bred bulls which are brought for slaughter during 1968-69.

C. Pigs

During 1967, the Veterinary Field Service used 33,372 doses of live lapinised vaccine against Swine Fever giving a coverage of approximately 80% of the population. Only one case of Swine Fever was observed during the year. This was amongst unvaccinated store pigs and the outbreak was quickly brought under control without further spread.

The number of doses of live vaccine used in relation to the pig population have been:-

	1963	1964	1965	1966	1967
Pigs vaccinated against Swine Fever	5,000	9,920	11,000	27,689	33,372
Number of pigs slaughtered	43,087	29,603	32,463	42,382	42,377

A marked reduction in the incidence of Swine Fever was noted as early as 1964 and this has persisted. It would seem that a coverage as low as 30% concentrated on the more difficult herds can produce quite dramatic results. Matters have now reached the stage when one can seriously consider stopping vaccinations and attempting eradication by slaughter under compensation.

Swine../..

Swine Erysipelas occurs sporadically but is not a serious menance. 6831 pigs were vaccinated.

49 suspected Sub-Maxillary glands were examined and 10 of them were found positive for Tuberculosis. In all cases which could be verified the infection was of Avian origin. Associated with errors in management and feeding the major source of loss to the pig industry is from mortality during the weaning and post weaning stage. Progress in this direction will continue to be slow. The majority of breeders are small operators who feed their sows on swill. No hired labour is employed and they have been willing to sell weaners for as little as £2.10.0. This gives little encouragement to anyone considering going into the business commercially on modern and more hygienic lines.

D. Miscellaneous

A confirmed case of Leshmaniasis was seen in a Military guard dog. This condition is of interest mainly because the clinical disease is rarely encountered. Yet as recently as 1949, a random check on 718 stray dogs brought for destruction showed that 8 or approximately 1% had Leishman-Donovan bodies in their spleen. The incidence is now probably much lower but it would seem either that a number of clinical cases are not diagnosed as such, or that the symptomless carrier state in dogs is more common that is realised.

Poultry Vaccines

The production and issue of locally prepared vaccines has continued on a reduced scale. Issues of Newcastle Disease vaccine were suspended during August. The use of Pox vaccines has declined also but even the present coverage appears to keep the situation under control.

Comparative statistics of issues have been:-

	1964	1965	1966	1967
Fowl Pox Vaccine	106,000	303,300	293,800	193,500
Pigeon Pox Vaccine	32,000	166,000	124,000	110,200
Newcastle l/o vaccine	43,000	142,200	111,700	37,100
	181,000	610,500	529,500	340,800

Revenue from vaccine sales during the year was £160.6.0.

Artificial Insemination in Cattle

The scheme has continued to operate with only one trained Inseminator and under these conditions it has not been advisable to court further e pansion through publicity campaigns.

Increasing use is being made of frozen semen imported from proven bulls in the United Kingdom and the "Straw" technique has recently been introduced.

Comparative Statistics are:-

	Total Services			
	1964	1965	1966	1967
Fresh semen	155	578	947	673
Imported semen	-	149	823	999
	155	727	1770	1672

The "break down" of the 1967 figures is:-

Original services	-	1170
First repeats	-	401
Second repeats	-	83
Third and later repeats	-	18
		1672

During the period September 1965 - March 1967, 1682 cows were inseminated with 2406 doses of semen. On analysis it was found that:-

1.446 doses of fresh semen were used per cow
1.414 doses of frozen semen were used per cow

The slightly better results obtained with frozen semen are explainable in that heifers are normally inseminated with frozen semen while any cow with a history of difficult breeding is usually given fresh semen.

The overall conception rate to first service was estimated at 67% during this period. It is to the credit of our one trained Inseminator that this service continued on a 365 day/year basis.

Animal../..

Animal Husbandry

A. Poultry

An interesting development has been the introduction of controlled environment houses for rearing, breeding and laying stock. This type of house should be particularly useful during the first six months of the year when the lengthening days make it very difficult to prevent birds from starting to lay too early.

In an attempt to prevent over production of eggs and uneconomic prices, most of our requirements of laying birds are now being bred and hatched locally. The balance of day old chicks needed for the national flock is imported under a strict quota, which amounts to approximately 20% of the numbers previously brought in. This policy affords a measure of control over future egg production and it has been possible so far to restore and maintain an economic price for eggs throughout the year.

Although Malta is now self supporting in broiler flesh this industry has not so far suffered from over production.

Turkey flesh is still a minor problem. The demand still remains largely seasonal and partly for this reason has not stimulated sufficient interest and production to meet requirements at the end of the year. There is clearly some danger in importing frozen turkey flesh from areas where Newcastle Disease is endemic and for the sake of a small luxury trade this risk is not justifiable.

B. Cattle

Milk production continues to increase slowly but steadily.

Sales of liquid milk from the Milk Marketing Undertaking have been:-

1963	-	3,811,440 gallons
1964	-	3,884,475 gallons
1965	-	3,949,304 gallons
1966	-	4,123,568 gallons
1967	-	4,172,137 gallons (estimated)

However../..

However any planned expansion to the national herd must depend on the amount of clover and straw which can be grown in Malta for roughage during years of sub-normal rainfall. Imports of straw are not practical either economically or from the point of disease control. Low butter fat values in the milk associated with seasonal shortage of rough fodder are now a recognised factor in milk production.

The number of local and imported bulls slaughtered in Malta and Gozo during the past five years have been:-

	Local bulls	Imported bulls
1963	1264	8070
1964	1175	7830
1965	1438	6812
1966	1513	5917
1967	1457	6910

As a rough appraisal of the situation, a national herd of 5,000 milch cows should produce approximately 4400 calves per annum of which 2200 should be bull-calves reared for meat. If we are currently slaughtering around 1500 local bulls per annum it would appear that our calfhood mortality has been in the region of 30%.

C. Pigs

This year has been a favourable one for pork production and Abattoir prices have been consistently high, so much so that there was a fall off in the number of pigs brought to the Bacon Factory towards the end of the year.

Slaughtering figures over the past five years have been:

	Abattoirs Malta & Gozo	Malta Bacon Factory	Imports of frozen pork for processing in 'Pig Equivalents'	Total Malta Bacon Factory
1963	38,609	4,003	1,620	5,623
1964	29,565	35	6,072	6,107
1965	30,492	1,971	4,912	6,883
1966	36,239	6,143	1,866	7,009
1967	37,097	5,280	2,800	8,080

CHAPTER V
HORTICULTURE DIVISION

General

The Horticulture Section moved to the new offices (above the Potting and Packing Shed) at the beginning of the year.

Heating and steaming equipment including two dual purpose mobile boilers, one generator and oil tank, one towage truck and steaming pipes were received from Guernsey through F.A.O.

In January Miss Madsen from Denmark joined the F.A.O. team as Associate expert on Strawberries.

In February Dr Mantel from Germany paid us a ten-day visit as consultant on Mushrooms culture; he was taken on visits to various farmers especially those cultivating or wishing to cultivate mushrooms.

Two boilermen assumed duties with the Horticulture Section in April and these were sent on a two-month course on boiler maintenance in Guernsey. Another boilerman was engaged in November.

Four Agricultural Assistants were appointed in July and each one of them was attached to one of the expatriate officers. At the end of the same month Mr R. Martinez arrived in Malta to take up duties as F.A.O. Seed Specialist.

In October a meeting of all glasshouse growers was held at the Government Farm during which the new export regulations about export of tomatoes by air to the United Kingdom were explained. The meeting was very well attended and it was a great success.

The hydroponics glasshouse was converted into trough culture for carnations while mist propagation equipment was installed in one of the Pratten glasshouses for the propagation of Ornamental plants. At present the latter greenhouse is manually operated so that its scope is rather limited; however, a tender for the supply of an automatic equipment has already been issued.

Steam../..

Steam sterilization of private farmers' glasshouses, using the two F.A.O. Mobile boilers, was started in July and finished in September. 18 farmers availed themselves of this service and in all 29 glasshouses were steamed.

Seed from Tomato variety Fountain Cross was saved and distributed to nearly all glasshouse growers; some farmers were also given plants ready for planting out while sowing was done for a good number of others.

In February some carnations and gerberas were exported to United Kingdom, fetching an average price of 10d per bloom. As from 2nd February to 20th March, 1967, 18 boxes of Gerberas (96 blooms) per box and 13 boxes carnations (96 per box) were exported. Gross returns for the 31 boxes were £145.18s.0d. total expenses £43.18s.4d. leaving a net return of £101.19s.8d.

The first exports of glasshouse tomatoes for the season were effected by private growers in December, 1966 while exports from Ghammieri started at the end of January 1967 and finished on the 27th April. Total tomato exports from the Farm were 1050 boxes X 6 lb.i.e. 6300 lbs.

The first consignment of glasshouse tomatoes for the 1967 export season was exported to Covent Garden by a local agent on the 26th December, 1967.

The new Tomato Export (By Air) Regulations have now been put into force and each consignment is being inspected at the Airport by the Agricultural Inspector, who was trained for the purpose. At first, inspections were carried out on the grower's own holding but later regular inspections were being made at Luqa Airport.

EXPERIMENTAL WORK

1. Cambridge Alumabrite Glasshouse (heated 89' x 30')

The whole glasshouse was floored (steam sterilized) and then banked and flooded (9350 gallons of water divided into three applications).

60 lbs. J.I. Base were applied as base fertilizer along the planting trenches; to this were added six bales of peat.

Propagation../..

(a) Propagation: Varieties GCR 88, GCR 93, J 168, 175, 347 and Fountain Cross, were sown on the 20th October, 1966 in a 50/50 peat/soil mixture plus two ounces superphosphate per bushel of mixture. Germination occurred on the 25th October and the seedlings were pricked out in 3½" Hartmann pots on the 31st October in a 50/50 peat/soil mixture plus two ozs J.I.Base per bushel of mixture.

Planting out, one foot apart, took place on 23rd November, 1966.

Liquid feeds (high potash) were applied from the 13th January but the potassium/nitrogen ratio was changed to 2/1 from the 11th February, whilst from 2nd May to 3rd June water only was applied.

(b) Watering: varied from 4 pints per week in December to 12/14 pints per plant per week in May.

Electric bees were used daily when the first truss came into bloom.

The boiler was switched on on the 13th December but the firing was very erratic and several break-downs were experienced causing loss of heat for days on end. Finally it was switched off on April 8th, 1967.

Consequently growth was adversely affected by these inadequate heating facilities which were brought about by the several boiler break-downs.

This variety trial which is being repeated in the 1967/68 season showed that the quality of the fruit produced by J 168/175 was superior to the other varieties tried and was promising from the export point of view. F.X. quality was good and this variety produced larger fruit than the other varieties.

The first ripe fruits were picked on the 13th March and the last pick was on the 20th June. Final yields were 6.01 lbs per plant.

II. Gillow house (heated) - modified trough

A modified trough system of growing tomatoes was tried in this glasshouse; this consists of isolating

the../..

the growing medium from the floor of the glasshouse by means of polythene sheets laid on the floor.

The tomato plants were planted in 9" whalehide pots which were filled with a 50/50 peat/soil compost which was mixed at the rate of one barrow soil and one barrow peat plus 1 lb. J.I.Base. The glasshouse was divided into four beds (each 3 ft.wide and 40 ft. long) which were covered with polythene on top of which was placed the growing medium over which were placed the whalehide pots. The growing base which was 2" high and held in place by a timber framework consisted of peat in two beds and 50/50 soil/peat in the other two beds.

The variety Fountain Cross was used.

Seed was sown on September 8th, 1966, germinated on the 12th September and the seedlings were pricked out in 22nd September. Composts as per Cambridge House.

Planting out, plants 12 inches apart, was carried out on the 22nd October.

Feeding and watering was semi-automatic through Cameran irrigation harness. As from 7th November one pint of High potash feed was applied daily; from 15th March feeding was changed to the 1:1 N/K feed until May 18th and from May 18th until 3rd June two pints of water only were applied per plant daily.

The boiler was switched on on the 13th December as for Cambridge glasshouse; growth was generally good but flower setting was affected by inadequate heat, even though electric bees were used regularly daily as from flowering of first truss.

Fruit quality was very good and yields higher than with traditional cultural methods.

The plants were not stopped but the method of training used was layering, which consists of gradually lowering the stems of the plants so that the bottom part becomes nearly horizontal. Arching over therefore is not resorted to.

The first fruits were picked on the 4th February, 1967 and the last on June 20th, yield per plant being 7 lbs.

III../..

III. Trough House (100' X 28')(unheated)

The troughs were steam-sterilized and flooded with 5,000 gallons of water.

Base fertilizers: 56 lbs Sulphate of Potash plus 28 lbs Superphosphate plus 56 lbs Hoof and Horn. 5 bales of peat were also applied.

Seed of Fountain Cross variety of tomatoes was sown on September 1st, 1966, and germinated on the 5th September. The seedlings were pricked out on September 14th, the composts used being the same as those for the Cambridge House.

Planted: October 6th, 1 foot apart.

The plants were irrigated with clear water until November 11th from which date until the 15th December they received High Potash feed. From the 16th December to the 1st April a 1:2 N/K feed (with iron as indicator in the Cameron bucket) was applied and from 3rd April until 3rd June water only was given.

Watering varied from 5 pints per week in October to 12-16 pints per plant in May.

Electric bees were used daily from the 1st week in December.

A space heater (non-ducted air) was installed at the beginning of February but heat circulation was restricted due to the glass partition in the middle of the house; this caused variations in temperature thereby adversely affecting flower setting with consequent reduction in yield though fruit quality was quite good.

Picking started on the 30th January,1967 and finished on the 20th June, when all the plants were forked out. Weight per plant, was $4\frac{1}{3}$ lbs.

IV. Guernsey Glasshouse (one half i.e. 50' x 28' still planted with Gerberas).

The other half of this glasshouse (50' x 28') was steam sterilized (whole floor) and flooded with 4500 gallons of water.

Seeds of tomato variety Fountain Cross were sown on the 29th August,1966; they germinated on the 2nd September and the seedlings were pricked out into $3\frac{1}{2}$" Hartman pots on the 10th September. Composts for sowing and pricking

out../..

out as for Cambridge House.

Base fertilizer: 56 lbs. J.I.Base plus three bales peat.

Planted October 4th 1966, 12 inches apart.

Liquid Feeding: Clear water until 8th November; 8th November/25th January.(High Potash): 25th January/ 29th March: 1:1 Nitrogen/Potash. From 29th March to 3rd June: water only.

Watering varied from 4-5 pints per plant per week in October to 12-16 pints in May.

Lush growth was apparent almost throughout the season. This was attributed to poor drainage and to water seeping into the glasshouse soil from the surrounding land.

No heating was used in this glasshouse but plans are in hand to remedy this.

The first ripe fruits were picked on the 30th January,1967, and harvesting finished on the 20th June. An average yield of $5\frac{3}{8}$ lbs. per plant was recorded, fruit quality being affected by the lush growth and excess water.

V. Guernsey Glasshouse No.8

The whole floor was steam-sterilized and then flooded with 9,000 gallons of water.

Seeds of tomato variety Fountain Cross which were sown on August 29th, 1966, germinated on the 3rd September. The seedlings were pricked out into $3\frac{1}{2}$" Hartmann pots on the 12th September in a 50/50 soil/peat mixture plus 4 ozs. J.I.Base per bushel of compost. (A 50/50 soil/peat compost plus 2 ozs. superphosphate per bushel was used for sowing).

Base fertilizers: 1 cwt. J.I.Base (applied along the planting trenches only) plus 5 bales of peat.

Planting out: 12 inches apart on 29th September, 1966.

Feeding and watering: Clear water from 29th September to 9th November. 10th November to 25th January - High Potash $\frac{1}{200}$. 28th January to 29th March 2:1 Potash/ Nitrogen and from 1st April clear water only.

Water../..

Water was applied at the rate of 4-5 pints per plant per week in October to 12-16 pints in May.

Electric bees were used daily from the flowering of the first truss.

Growth was particularly lush in the Southern half of this glasshouse due to excess water caused by seepage into glasshouse from adjoining land, resulting in the plants developing pith necrosis, bad setting and rough fruit.

No heating was available, and the low/high temperatures recorded made the control of lush growth and fungal diseases virtually impossible.

Fruit quality was badly affected by lush growth of plants resulting in more discolouration and misshapen fruit than in other houses.

The period of harvesting was from the 30th January, 1967 - 20th June, giving an average yield of 6 lbs. per plant.

VI. Cucumber Glasshouse (heated)

Three types of cultural techniques were tried in this glasshouse: along one side of the glasshouse the cucumber plants were grown in beds (i.e. banked in twos), and on the other side on the ridge while the cordan system of growing was demonstrated in the middle of the glasshouse.

The two varieties 'Green Spot' and 'Telegraph' were used, the harvesting season being from the 23rd January, 1967 to 8th May, 1967.

Final results of yields were as follows:-

Variety: Green Spot

No. of Plants	Fruits						Total	
	Large		Medium		Small		Total	
	No.	Wt. Rot. Ozs	No.	Wt. Rot. Ozs.	No.	Wt. Rot. Ozs.	No.	Wt. Rot. Ozs
Beds 14	112	76 - 12	127	57 - 27	51	15 - 24	290	150 - 3
Cordon 13	18	12 - 10	61	30 - 14	69	22 - 17	148	65 - 11
Ridged 13	29	17 - 15	79	35 - 19	67	21 - 23	175	74 - 27

Variety: Telegraph

No. of plants		Fruits								Total		
		No. Large	Wt. Rot.	Ozs.	No. Medium	Wt. Rot.	ozs.	No. Small	Wt. Rot.	Ozs.	No. Total	Wt. Rot.	Ozs.
Beds	13	90	56	- 4	133	61	- 19	84	26	- 14	307	144	- 7
Cordon	8	9	4	- 10	50	23	- 15	52	15	- 28	111	43	- 23
Ridged	14	59	32	- 16	93	37	- 9	67	18	- 27	219	88	- 22

CHAPTER VI

PUBLIC GARDENS, NURSERIES, PLANTATIONS AND AFFORESTATION DIVISION

San Anton Public Gardens

The year 1967 will be remembered as the year during which improvements of a special and permanent character were carried out.

A path and a pond were constructed to match the Diana pond.

Two spacious borders were made and the requisite amount of soil was added. The work of replanting and rearranging, digging and manuring the many beds and borders was carried out. The citrus groves received attention and other trees were pruned and shaped.

A collection of the various palms which grow in Maltese soil and climate have been placed in groups in the range of show sheds at the southern ends of the garden, each variety being suitably labelled.

Other Gardens

Other gardens have been kept in good order throughout the year and planted with annuals with a view of increasing variety of colours.

Children's playgrounds have been laid out by the Public Works Department but the planting of trees and shrubs and their maintenance is the concern of the Department of Agriculture.

Lawns

Lawns have been sown in plots in two of the main roads. Two other varieties were sown in two separate nurseries. The result will be seen by the end of summer 1968. Experiments were made over thirty years ago with negative results. Our climate is not such as to favour lawn growing.

Public../..

Public Plantations

As Spring 1967 was rather dry, it was necessary to commence watering the trees much earlier than usual.

The total number of trees and bushes planted during the year was 2,618 trees and 4,171 shrubs. Of these 1,319 trees and 995 shrubs represent replacements, damaged or destroyed by vandalism or by motor vehicles.

Nurseries

The number of plants issued from the nurseries, includes, besides the Department's requirements, sales for planting in private gardens.

Propagation was stepped up and steps are being taken to keep up a rapid rate of progress.

A new nursery at Wied Incita for the propagation of Citrus trees and fruit trees was opened.

The necessary amount of soil was added and retaining walls, constructed. The following seedlings were planted: 2000 prunus myrabolana, 500 pyrus communis, 500 Diospyrus lotus, 12,000 malus communis, 5000 Cerasus mahaleb, 2200 citrus bigaradia, 3000 cuttings of roses. Besides, 12,000 bitter almonds were sown to serve as stock for eventual grafting or budding. The cultivated area is 8 tumoli but an extension is contemplated.

Buskett

These gardens are a favourite resort of holiday makers and are visited by large crowds of people on Sundays and Festas. The necessary maintenance was kept at a satisfactory level.

The yield of Citrus fruit was very meagre and the fruit was undersized resulting in smaller receipts from sales.

San Anton and Verdala Private Gardens

These gardens have been maintained in their usual attractive condition.

Three../..

Three trees sent from the Royal Botanic Gardens, Kew were planted by Her Majesty the Queen, the Duke of Edinburgh and by the Governor General Sir Maurice Dorman. These trees are receiving the required care and attention.

Afforestation

At the beginning of January, 1967 a fresh drive was made on Afforestation and an Afforestation expert, Mr Hershenson was sent to Malta for two months by the Israeli Government to advise the Malta Government.

As a start it was decided to plant trees at Ghajn Tuffieha Bay, one of our most popular bays. 5,000 Acacia seedlings and 5,000 Tamarix Articulata cuttings were planted. The latter is a new variety of Tamarix for Malta which, when grown, looks like Casuarina. These seedlings were donated free of charge by the Israeli Chargé d'Affairs in Malta and Mr Kolar, Deputy Director of Forestry in Israel who paid a visit to these Islands and inspected the sites for future planting.

St.Paul's Nursery, Rabat, was selected for the formation of a Forest Nursery on the recommended lines. During this period 30,000 seedlings consisting of Acacia, Cypress, Pinus, Pittosporum and Caster Oil were raised in polythene bags whilst 200 wooden boxes were sown with seed of these species producing eventually 100,000 seedlings. As there were some failures at Ghajn Tuffieha, 4,000 Acacia seedlings were transplanted to this site and are well established.

Good-sized trees were planted at Ghajn Tuffieha, back part, the Golden Bay and Fekruna Bay, Xemxija. The trees planted consist of Pines, Cypress, Acacia and Olive. Along Salina Road hundreds of Tamarix and more Acacias were planted in new ground.

CHAPTER VII
THE MARKETING DIVISION

I. Introduction

The main activities of the Section comprise the following:-

1. The supervision of the wholesale Pitkali Markets
2. The running of the Agricultural Produce Inspection Shed.
3. The recommending of licences to the Department of Trade for the import and export of Agricultural Produce.
4. The issuing of permits for the distribution of locally milled wheat offals and manure.
5. Control price inspection of fresh fruit, vegetables, eggs, meat and fodder at the retail level.
6. The collection of price statistics of Agricultural products and of general statistical data.

II. Vegetables

a) Potatoes are extensively grown in Malta and Gozo to meet both the local market demand and for export.

Every year some 4,000 tons of Seed Potatoes chiefly Arran Banner, Alpha and some Craigs Royal are sown in Malta and Gozo in the months of November/February.

By April following the tubers mature and the export season commences.

In 1967, 10,688 tons of Spring Potatoes valued at £375,503 were exported. Of this quantity 6,246 tons 11 cwts were exported to the United Kingdom, 4,394 tons 17 cwts 2 qrs to Holland and 46 tons 10 cwt to Sweden.

The potatoes are generally exported in new jute bags but, during the year under review, the Malta Union of Farmers exported 3877 25 kilo boxes of potatoes, packed in peat moss, to a total weight of 96 tons 18 cwts 2 qrs.

b)../..

b) Onions

Onions are the second largest item of Agricultural produce exported. During 1967, 1,722 tons 4 cwts.2 qrs. of Dry Onions valued at £77,297 were exported. Of this quantity 1,524 tons 1 cwt.2 qrs. were exported to United Kingdom and 198 tons 3 cwts.to Holland.

The seed is grown locally but foreign seed is also imported.

Two main varieties of onions are grown, one to cater for the local market, the other mainly for export. The local market prefers the round pink type and the foreign market is generally met by exporting the round yellow flat top type.

This variety is mainly grown on relatively dry land, mostly in the Eastern and Southern districts.

c) Tomatoes

Tomatoes are grown all the year round.

Out of season glasshouse tomatoes have become so abundant that besides satisfying the local market , ever larger quantities are being exported to the United Kingdom.

To enable farmers to grow out of season tomatoes the Department has given and is still giving loans and grants to growers for the erection of glasshouses.

During the year under review 50,000 kilos of glasshouse tomatoes valued £20,535 were exported to United Kingdom as compared with 50,011 kilos valued £26,583 in 1966.

The Tomatoes (Export by Air) Rules 1967 were published and all tomatoes for export are to satisfy them.

III. Other Vegetables

Hardly any fresh vegetables are imported. All local requirements are met from the local production.

The principal../..

The principal vegetables grown are:- Artichokes, both globe and Jerusalem, Broad Beans, Cabbages, Carrots, Cauliflowers, Cucumbers, Kohlrabi, Lettuce, Long Marrows, Vegetable Marrows, Peas and Pumpkins.

IV. Fruit

Fruits of all kinds are grown, the most important being apples, cherry plums, figs, melons water, melons sugar, oranges, peaches and strawberries.

However, the demand for fruit is so great that considerable quantities are imported every year mainly from Italy.

In an effort to increase local fruit production and thus reduce importation, the Department, has imported and is still importing thousands of early and late fruit trees and selling some to farmers.

V. Cereals

Wheat, barley, vetches, forages, dry broad beans and locust beans are grown in relevant quantities but imports remain the chief source of supply.

VI. Pitkali Marketing Centres

Agricultural products are mainly put on the market through Pitkali (Salesmen) and Co-operative societies.

The number of Pitkali is 32 in Malta and 4 in Gozo, while Co-operatives have 6 centres all in Malta.

The pitkali run their business in the following centres:-

Malta	Gozo
7 established at Birkirkara	4 established at Victoria
5 established at Marsa	
2 established at Mosta	
5 established at Rabat	
3 established at Zebbug	
10 established at Marina-Valletta	

VII../..

VII. Co-operatives

There are marketing co-operatives in each of the following centres: Marsa, Birkirkara, Rabat, Siggiewi, Zebbug and Marina Valletta.

With the exception of the pitkali at Marina, Valletta and Victoria, Gozo, pitkali run their business under the supervision of a Departmental Official appointed for the purpose.

VIII. Exports

a) Potatoes are the chief Agricultural produce exported. The quantity of Spring Potatoes exported during the year under review was 10,688 tons valued £375,503 as compared with 10,435 tons valued at £466,986 in 1966.

b) Onions are also exported in considerable quantities. In 1967 owing to the fact the production was rather poor only 1,722 tons 4 cwts 2 qrs. valued at £77,297 were exported as compared with 4,421 tons valued at £154,013 in 1966.

c) Cut Flowers, Plant Cutting, Seeds and Bulbs

Cut flowers, plant cuttings, seeds and bulbs are also exported in considerable quantities.

The value of these exports during 1967 amounted to £302,816 as compared with £264,903 in 1966.

The trade is in the hands of experienced businessmen and there is every indication that progress in the export of cut flowers and plant cuttings will be maintained.

d) Eggs in the Shell

The export of eggs in the shell during the year under review was 85,140 dozen valued at £11,929.

Export of eggs will henceforth have to comply with the Egg Export Rules, published in 1967.

e) Fresh../..

e) Fresh Tomatoes

The quantity of fresh tomatoes exported by Air to the United Kingdom during 1967 was 50,000 kilos valued at £20,535 as compared with 50,011 kilos, valued at £26,583 in 1966.

f) Other Agricultural Produce

During the year under review £2,414 worth of English Strawberries & 4926 Kgs French Beans valued £2,236 were exported. There is every probability, in the coming years that the export of the above three items will continue to increase.

g) Live Animals including Sheep, Goats, Cows and Day Old Chicks

Licences for the export of 991 goats, 921 sheep, 75 cows, 400 live hens and 5,000 day-old chicks were recommended to the Department of Trade.

The value of these exports under the name of "Live Animals amounted to £20,096

IX. Imports

Steps are constantly being taken with a view to limit the outflow of money on the purchase of imports. The total value of the fresh fruit imported during 1967 was £661,095 as compared with £710,334 in 1966.

Frozen Poultry

i) During the year under review no frozen poultry was imported. In 1966, 156,370 kilos valued at £48,873 were imported.

ii) The quota for the importation of Frozen Turkey/Ducks remained the same as that for 1966. There is every probability that the local rearing of Turkeys/Ducks will soon be able to satisfy local requirements.

iii) Fodder../..

iii) Fodder is another item which is imported in large quantities. The value of fodder imports in 1967 was £3,015,168.

iv) In 1967, 3,390 tons of Seed Potatoes were imported. The varieties imported were Arran Banner, Alpha, Craig Royal and Pentland Dell.

v) Fertilizers are imported in Sizeable quantities. The value of these imports in 1967 are £47,866.

X. Licences

All import and export licences regarding Agricultural products and other items of Agricultural Interest are submitted with recommendation or otherwise to the Department of Trade.

XI. Permits

a) Fodder

Every Friday morning the Secretary of the Malta Millers Association gives the relevant information regarding the wheat offals supply position for the ensuring week.

The balance, after deducting Gozo's allocation, is distributed by means of permits to licensed retailers, registered breeders, manufacturers and co-operative societies according to their requirements, after the supply position is taken into account.

During the year 1967, seventy seven thousand three hundred and ten (77,310) qantars of Pollard and seventy seven thousand nine hundred and seventy (77,970) qantars of Bran were distributed in this manner.

b) Manure

During the same year permits for 1,115 truck loads of manure, equivalent to 5,575 tons were issued to farmers.

XII. Inspection

Agricultural Inspectors make regular inspections on retailers of fresh fruit and vegetables in various

parts../..

parts of the Island for the purpose of ensuring that the provisions of the Agricultural Produce (Marketing) Regulations 1952 are being complied with.

Butcher shops are also inspected for the purpose of checking on the price of fresh meat.

XIII. Statistical Information

Inspectors also collect retail prices of fresh fruit, vegetables and meat for statistical and other purposes.

As in previous years help was extended to the Central Office of Statistics in connexion with the yearly Census of Agriculture 1966/67.

The Department was helped by the following Boards and Committees composed of official members and representatives of the respective trades and of consumers namely:- The Fresh Fruit, Vegetable and Fish Advisory Board, The Poultry and Rabbit Advisory Committee, The Pig Advisory Board, The Wine Advisory Board and The Potato Export Group.

The Poultry Study Group appointed by the Honourable Minister of Trade, Industry and Agriculture to study the Poultry Industry and eventually make recommendations to render it a more remunerative industry submitted a preliminary report in October, 1967.

CHAPTER VIII
PLANT PROTECTION DIVISION

I. General

The main item under consideration during the period under review was the effect of the new International restrictions on the use of Chlorinated Hydrocarbon insecticides as applied to local recommendations. Following a detailed study on the local uses of these insecticides, it was decided that the problem was a long-term one and that the best way out would be a gradual easing up of their use, coupled with the issue of alternative recommendations.

The Pesticides Regulations were published early in the year but their effective date of enforcement was suspended due to the lack of the proper facilities.

The Plant Pathologist and Entomologist, Dr.L.J.Saliba, resigned in October 1967 to take up a lecturing post in the Department of Biology at the Royal University of Malta. Mr E.J.Ebejer Blythe, Officer in charge Extension Service, assumed temporary control of the Section, pending a permanent replacement. Dr.G.J.Peralta Plant Pathologist, assumed responsibility for the Section in December, 1967.

The Section's Foreman, Mr N.Griscti, retired in January 1967 on reaching the age limit. His duties were temporarily taken over by Head Operative.

II. Laboratory

Further additions in apparatus and equipment were made, mainly under the U.N.D.P.Horticultural Development Project.

The bulk of laboratory work during 1967 consisted in identification of pest and disease material. As culturing facilities were increased by the acquisition of new incubators and ancillary apparatus, more work on fungal material could be performed. No new pest or disease was recorded.

Laboratory../..

Laboratory trials on the effect of various insecticides on larvae of the Tussock Moth (Orgyia trigotephras var corsica Stgr.) and the Mediterranean Climbing Cutworm (Prodenia litura Fb.) were again carried out. In both cases, DDVP, applied as 50% E.C. at 0.1% a.i., gave satisfactory results.

III. Field Trials

No signs pointing to the emergence of any resistant strains could be discovered during 1967. As far as could be ascertained, Malathion was not up to its previous records. This, however, was only from Farmers' reports, and Trials performed by the Section with Malathion on a miscellany of crops continued to give good results. With the present Pesticide position, it is still impossible to tell whether failure with any chemical to achieve the desired result is due to faulty technique, unreliable chemicals or pest resistance. It is probably a combination of the first two.

Ethoate Methyl was tested on a variety of fruit and vegetable crops at dosage rates ranging from 0.1% to 0.2% of the 50% E.C. formulation used. The results in every case were satisfactory but no hard and fast recommendations were made so far.

Dieldrin continued to give very good results against Trunk borers in Apple and Pear trees. The advice given to farmers to uproot old and ruined stock and plant young trees is not, however, being followed to any great extent, farmers remaining adamant in leaving trees even when their fruit-bearing capacity is evidently near the end-point.

Dieldrin was not used on Citrus for control of Mediterranean Fruit Fly this year and Fenthion and Dimethoate was recommended instead. It was found advisable to test the latter two chemicals on their own during the 1967 season. Results continued to be good.

Aldrin and Dieldrin continued to give good results against soil pests, although once again, it was

found../..

found difficult to persuade farmers to apply the chemicals at the proper time. Soil-borne diseases were controlled satisfactorily, principally in glasshouses, by steaming or by the application of Metham-sodium.

No noticeable outbreak of Profenia litura occurred during 1967. Infestations were minimal and generally unimportant. Trials were held at Qrendi on a variety of crops but no results were obtainable owing to non-infestation of the control plots.

IV. Advisory work

Several talks to farmers and growers were given by the Section during Extension Service meetings. These dealt with a variety of topics. Talks were also given in the Sunday half-hour for farmers over the Rediffusion System. All talks and broadcasts were delivered by the Plant Pathologist and Entomologist.

Several farmers and growers, including a large number of householders, were visited at their premises and given advice on Pest and disease control. Advice was also given to several others who called at the Government Farm. Advice to importers and retailers of Pesticides was also given, principally on the suitability of Pesticides for the local market, dosage rates and safety precautions.

V. Phytosanitary Branch

The following consignments were examined for pest and disease presence during 1967.

Imports:

Fruit	-	574,996
Potatoes	-	59,270
Other Vegetables		23,557
Ornamentals,etc.		167,488
		826,696

Exports../..

Exports:

Potatoes	-	354,145
Onions	-	68,889
Tomatoes	-	31,823
Fruit	-	48
Vegetables	-	1,163
Ornamentals	-	16,512
Miscellaneous plants	-	36
Seeds	-	131
		472,747

1715 ½-cwt bags Onions and 4355 ½-cwt bags potatoes were refused export owing to infestation.

VI. Contract Spraying

The following crops were sprayed during 1967:

Citrus	-	16,670 trees
Apples and Pears	-	2,950 "
Soft fruit	-	885 "
Olives	-	250 "
Potatoes	-	230 tumoli
Vines	-	43 "
Ornamentals	-	50 "
Miscellaneous	-	140 "

In addition, approximately 1500 trees and Vines were pruned and grafted. Soil sterilization in about 30 glasshouses was also performed.

CHAPTER IX
GOVERNMENT EXPERIMENTAL FARM

Introduction

The main scope of the Government Experimental Farm is:-

a) To serve as a demonstration farm to livestock breeders, growers and floriculturists.

b) To produce high quality breeding stock and good quality seeds and plants.

c) To acquaint farmers with modern farming techniques.

d) To encourage a fuller use of agricultural machinery and fixed equipment.

e) To afford facilities to the Department to carry out research work in both animal and crop husbandry.

Considerable progress was achieved during the year under review. On their part, the local farming community seems to have fully understood the scope of the Government Farm and this is proved by the increasing number of visits paid by farmers from all parts of the Island.

Section 1 - Livestock

a) Dairy

A cow herd of 17 milch cows and followers was kept. The average milk yield based on a lactation of 305 days was 1050 gallons. This is in fact the highest ever obtained on the Government Farm and is mainly attributed to the following factors:-

1) Better use of the genetic potential of the higher yielding cows;

2) Fuller use of nominated artificial insemination;

3) Improvement in the feeding techniques;

4) Better overall management.

Great efforts were made to impress upon the farmer the necessity of modern methods of feeding. Feeding on the basis of a maintenance and production requirement was demonstrated and proved to be the most economical way of feeding milch animals.

b) Caprines../..

b) Caprines

A Saanen herd was again kept for the purpose of supplying billy goats to local goat keepers. These are in great demand by local herdsmen for crossing with the local breed.

Besides, a Saanen Stud Service was made available throughout the year. A herd of maltese goats was stated as it was felt that it was fit and proper to keep a small herd of the local type goat for demonstation and experimental purposes.

c) Swine

During the year under review the sow herd on the farm was raised from 25 sow to 53 sow unit. The main reason was to be able to sell more breeding stock of an improved quality to local breeders thus improving the National Pig Herd.

Through Sorghum-Scheme funds a new 20 sow unit was erected on the farm as a demonstration unit for the breeders erecting new units with funds provided under the Sorghum-Scheme.

All the progeny sold for breeding purposes from the Government Farm was selected from sows which had at least farrowed and reared up to eight weeks more than 8 piglets with a good weaning weight averaging over thirty pounds liveweight.

A number of trails and experiments were carried out on the farm.

i) Diets incorporating sorghum

In order to be able to demonstrate to the farmer the nutritional value of sorghum in pigs' rations, a number of feeding trials were carried out, taking into consideration the conversion ratio and the grading for bacon. It is with pleasure to record that, in all trials, conversion ratio was always below 4 whilst the bacon grading even with 20% sorghum incorporated in the ration during the latter part of the fattening stages, has always been over 90% grade A.

ii) Piglet../..

ii) Piglet Anaemia

Trials were also carried out in connexion with Piglet Anaemia in order to demonstrate to the pig farmer the necessity to vaccinate the new-born piglets with an iron supplement.

iii) Poultry and Rabbits

This section of the farm was mainly devoted to trials and experiments in connexion with the breeding, hatching, feeding and management of turkeys, broilers, ducks, pheasants, geese and guinea fowl.

Valuable assistance was extended to farmers interested in the type of husbandry by supplying them with hatching eggs, day-old poults and ducklings as well as with literature and advice on management.

iv) Broiler Trial

A trial with 150 Cobb day-old broilers was carried out. The birds gave a very good overall conversion ratio averaging 3.1 lbs of food per lb of liveweight gain. The mortality throughout the trial was 2%.

d) Rabbits

The aim of rabbit keeping at the Government Farm is mainly to encourage breeders to increase better strains of breeding rabbits. The main breeds supplied to farmers were the New Zealand White and the Californian which are undoubtedly the most popular meat rabbits all over the world.

Throughout the year, more propaganda was launched to popularize the all metal weldmesh type of hutch which has now gained considerable favour with local breeders.

Section 11 - Horticulture

a) The activities of this Section during the year under review were directed.

i) Towards growing enough fodder and roughage for the livestock kept at the farm;

ii) Carrying../..

ii) Carrying out trials and experiments with established as well as new crops;

iii) Growing seedlings for sale to farmers.

During the year under review several trials and experiments were made with:-

(a) Spring and winter potatoes, (b) Tomatoes, (c) Melons, (d) Vegetable marrow, (e) Cucumbers (f) French beans, (g) Bell pepper, (h) Egg plants, (i) Brussels sprouts, (j) Lettuce, (k) Carnations, (l) Gerbera, (m) Roses, (n) Kale for fodder, (o) Lucerne and (p) Liliums.

b) Spring and Winter Potatoes

Trials were carried out during the year with different varieties of spring and winter potatoes in order to be able to assess which variety is the most economical to grow under local conditions. The Arran Banner and the Alpha have again proved to be the most high yielding varieties.

Trials were also carried out adopting different methods of seed cuttings and it was once again proved that the most important point to consider is the quantity of seed (in weight) that is put in per tumolo of land.

c) Tomatoes

New varieties of tomatoes were tried out during the year in order to advise farmers as to which of the modern varieties is ideal for conditions in Malta.

Melons

Further trials were carried out with the Israeli (Haagen) as well as the French (Cantaloup) type of melon. These varieties have proved to be of excellent quality and are both becoming very popular with farmers.

Carnations

Further trials with various varieties were carried out. A new variety, namely the "Sparkes Frosted Purple" was introduced which, although rather weak on the stem, has proved to be very popular due to its purple colour.

Liliums../..

Liliums

Two varieties of liliums, namely "Lilium longiflorum" and "Lilium candidum" were grown under glass for the first time in Malta. Both varieties are considered as possible economic flower crops under glass and further trials will be carried out next season.

Kale for Fodder

Two varieties of Kale, namely "Thousand Head" and "Marrow stem" were grown for the first time at the Government Farm.

Both varieties gave excellent yields and it is proposed to carry out further trials in the future for confirmation purposes.

CHAPTER X
VITICULTURE & OENOLOGY DIVISION

During the period under review, the following activities were implemented, viz:-

a) Viticulture

Implementation of the four-year development programme in viticulture expansion was continued. The erection of sub-stations in the various vine-growing areas was increased by three new units, while two sub-stations planted in 1965 were grafted with choice wine and table varieties. The rubble-wall scheme, that is, the planting of vines along rubble-walls, was also persevered in and over twenty grape-farmers had part of their rubble walls planted with vines. This brings to a total of almost 80 grape-farmers benefiting from the rubble walls scheme and the setting-up in Malta of 8 sub-stations of approximately one tumoli each.

b) Legislation

The Wine Advisory Board was engaged on the revision of the Wine Ordinance and a draft revised edition will be ready for submission to the Hon.Minister in the near future.

c) Laboratory

Since the new Viticulturist and Oenologist took over, various items of essential laboratory equipment have been introduced and it is anticipated that

in../..

in due course the laboratory will prove to be of some use to commercial vintners.

d) Oenology

Remodernization of the whole wine section of the Buskett Grape and Wine Station was taken in hand. Work was started and almost completed on the exterior tiling of the vats and the fixing of suitable "tops" and "bottoms" to individual vats. This would permit proper utilisation of the capacity of the Station.

CHAPTER XI
LAND AND WATER USE DIVISION

During the year, the Land and Water Use Section, which is administered by the Agricultural Chemist, was strengthened with additional staff and reorganized to include new activities such as laboratory service for soil and water analysis, second class channel water distribution and bowser water distribution.

A. Classification of Activities

The activities of the section could now be grouped as follows:-

(i) Administrative and legal

(a) Agricultural Land Registration (Agricultural Returns Ordinance 1935).

(b) Soil Preservation (Fertile Soil Preservation Ordinance 1935).

(c) Land and Crop Assessments (Act No.XVI of 1967, Agricultural Leases (Reletting) Act and Land Acquisition (Public Purposes) Ordinance.

(d) Distribution of water to farmers by bowsers.

(e) Distribution of 2nd class channel water to farmers in the three villages, Mriehel and St.Vennera.

(f) Vetting of tap water applications.

(g) Construction of water reservoirs under the Loans and Grants Scheme.

(ii) Scientific and technical:

(a) Analysis of soil and irrigation water

(b) Fertiliser, mulching, irrigation, animal nutrition and Hydroponics Experiments.

(c) Fruit tree nurseries at Ghammieri.

(iii) Advisory:

Expert advice on soils, irrigation fertiliser, land use, sewage reclamation for irrigation and allied subjects.

B. Staff../..

B. Staff

During the year a Junior Agricultural Chemist (Mr John Bonnici, B.Pharm.) was appointed and two other Agricultural Inspectors were seconded to this section.

The staff was allocated the following duties:

(a) Junior Agricultural Chemist: Laboratory Service
(b) Lands Officer: assessments
(c) Land Registration Inspector: Land Registration
(d) Water Inspector: water distribution and construction of water reservoirs.
(e) Soil Inspector: Soil Preservation.

C. Laboratory Service

The laboratory was inaugurated in May by the Hon.Minister of Trade, Industry and Agriculture and from May to December some forty farmers availed themselves of this laboratory service. The main problem which became apparent through the analysis of glasshouse soils, was the high salinity brought about by the continual use of tap water for irrigation.

D. Assessments

The demand for crop and land assessments from the Public Works Department, the Department of Land, the Malta Electricity Board and other Government Departments continue to increase at an alarming rate and the Lands Officer, although assisted by the Land Registration Inspector, was unable to cope with all the work. The number of assessments actually carried out during the year were as follows:-

Public Works Department	- 83
Malta Electricity Board	- 182
Land Department	- 15
Water Works Department	- 9
Agriculture Department	- 5
University	- 3

E. Land../..

E. Land Registration

The Land registration, which formerly was carried out by a clerical officer, had to be put in the hands of an Agricultural Inspector.

F. Water Distribution

The distribution of 2nd class channel water to farmers in Rabat, Lija, Balzan, Attard, Mriehel and St.Venera was finally transferred to this department in October 1967. This water project required that the Water Inspector first of all familiarise himself with the project and then carry out certain improvements designed to ensure that all the water reach the farmers with as little loss as possible. The project supplies water to:

(i) 26 farmers at Rabat
(ii) 59 farmers at Lija
(iii) 13 farmers at Balzan
(iv) 17 farmers at Attard
(v) 7 farmers at Mriehel
(vi) 2 farmers at B'Kara
(vii) 19 farmers at St.Venera
(viii) Tal-Kmand nurseries
(ix) San Anton Public Gardens
(x) The Governor-General's private gardens

The water comes from the Chadwick Lakes and from a submersible pump supplying water from a borehole at Balzan.

Four departmental bowsers were placed at the disposal of this section during the year. Bowser water is supplied to various public gardens and to farmers who are prepared to pay ten shillings for every 1,200 gallons of water supplied.

G. Soil Preservation - The Fertile Soil (Preservation) Ordinance (Chapter 130)

The Fertile Soil (Preservation) Ordinance has come considerably into the picture as a result of the

considerable../..

considerable building boom that struck the Island. This piece of legislation is meant to preserve Malta's patrimony of fertile soil which is so precious to the farming community and so necessary to agricultural production. However, the enforcement of the provisions of the Ordinance was not an easy matter due principally to the lack of co-operation. None-the-less, the Department, which is responsible under the Ordinance, has done its best to cope with the situation. During the year, 597 building notices received and 326 sites inspected. The monthly breakdown of these figures was as follows:

Month	Building Notices	Sites Inspected	C/Y of Soil Removed
January	49	23	2,727
February	35	43	4,586
March	38	49	10,307
April	25	17	7,135
May	55	20	3,292
June	35	13	2,206
July	29	21	2,835
August	48	33	4,326
September	102	16	1,910
October	93	34	2,295
November	52	37	7,743
December	36	20	3,871
	597	326	53,233

H. Other Activities

During the year, the Agricultural Chemist was chosen to sit on the Rural Leases Control Board which was constituted in terms of Agricultural Leases (Reletting) Act, 1967.

CHAPTER XII
GOZO DIVISION

Introduction

Gozo being predominantly agricultural, it is estimated that 75% of the population earn their living out of the soil, breeding of livestock and from the sea.

The area of cultivable land in Gozo is approximately 37,000 tumoli, out of which 1000 tumoli are under irrigation.

Agriculture in Gozo is generally carried out on a small scale in widely scattered small units and by persons who usually work in family groups.

Climate

The total amount of rainfall during the year totalled an average of 10.18 inches.

Horticulture

1. Glasshouse and Polythene Houses

Several experiments were carried out during the year with different crops under glass.

These were mainly the following:-

a) Carnations
b) Roses
c) Tomatoes
d) Vines
e) Strawberries
f) Green Pepper
g) Cucumbers
h) Gambo Pepper

Some good and promising results have so far been achieved from the above experiments. It is our intention to repeat such experiments.

Notes on experiments are given hereunder:

1. Carnations

1 glasshouse was planted with Carnations comprising 2718 plants:

Date../..

Date of planting - 20th June, 1966
First picking - 13th October, 1966
Last picking - 8th July, 1967

Amount of Blooms picked - 5600
Prices ranged from 3d. to 4d. per bloom

2. Cucumbers

Different varieties of cucumbers were tried out under:

a) Polythene
b) Cloches
c) In the open

All seed was sown on 30th March, 1967.
All plants were planted on 20th April, 1967

a) Under Polythene

Variety	No. of Plants	Total Yield
Beith Alpha	14	98 lbs. 10 ozs.
Telegraph	4	52 lbs. 6 ozs.
Green Spot	4	68 lbs. 13 ozs.

b) Under Cloches

Beith Alpha	4	66 lbs. 1 oz.
Telegraph	4	23 lbs. 1½ ozs.

c) In the Open

Beith Alpha	4	18 lbs. 9 ozs.
Telegraph	4	13 lbs. 2 ozs.

3. Brussel Sprouts

1 variety was tested "Long Island Improved".
Seeds were sown on 23rd July, 1966 and planted on 10th November, 1966.

Total yield was 708 rotoli.

4. Strawberries

6 varieties are being tried out.
No fruit was marketed during the year.
The varieties are the following:-
Fresno, Huxley, Solano, Cambridge Favourite, Florida 90 and Torey.

2) Outdoor../..

2) Outdoor Vegetable Crops

Several experiments in the open were carried out during the year with different varieties of vegetable crops.

Experiments were carried out with:

a) Tomatoes
b) Strawberries
c) Brussel Sprouts
d) Onions
e) Green Peppers
f) Cucumbers
g) Pepper Gambo
h) Lettuce
i) Muskmelon
j) Water melons

Again some good results were obtained from these experiments and further trials will be laid down in the coming year.

3) Steam Sterilization

A 5-ton boiler, under the F.A.O. Scheme, was supplied to Gozo for the purpose of steam sterilizing glasshouses.

In this way, it is hoped that farmers learn that sterilization is a "must" if a decent crop from glasshouses is to be obtained.

4) Fruit

One of the main activities of this branch, was the establishment of further fruit Nurseries, adjoining the Government Livestock Centre.

The area under fruit trees is about 5 acres. About 8 tumoli of almond seed were sown for the propagation of fruit seedlings for eventual distribution to farmers at a nominal price.

About 22,000 rootstock seedlings of different kinds of fruit were imported from Italy and planted for the propagation of fruit trees.

Different../..

Different varieties of peaches, plums, pears, etc. were introduced during the year with the primary aim of lengthening the fruit season in our islands thus restricting imports of fruit to a minimum.

A part of the Nurseries, measuring about 5 acres, is devoted to a Fruit Orchard where different varieties of fruit are tried out before introducing them to the farmers.

This consists of the following:-

50	varieties of	Peaches
20	"	" Plums
10	"	" Apples
10	"	" Apricots
15	"	" Pears
5	"	" Kaki
2	"	" Nectarines

These Nurseries are always a hive of activity. They are visited frequently both by farmers as well as by tourists.

VITICULTURE

1. Wine Regulations

The enforcement of the Wine Control Regulations has always been strictly carried out.

The following data relating to these Regulations were collected during this year's Vintage season.

Licensed Commercial Vintners	54	
Grapes Pressed	8533	
Production of Wine	23590	Barrels
Production of Must	1300	"
Wine shipped to Malta	23335	"
Sales of Wine in Gozo	12030	"

2. Vine Plantations in Gozo

The following are the figures for vine rootstock sold to Gozo Farmers during the last 5 years:-

1963../..

1963	...	...	19,281
1964	...	...	12,680
1965	...	...	13,816
1966	...	...	11,792
1967	...	...	12,592

During the year 3 experimental vineyards were laid down on privately-owned farms in different districts in Gozo bringing the total to 8 experimental vineyards on private property.

4 farmers planted 240 vines against rubble walls bringing the total to 28 farmers who have to-date planted 60 vines each against rubble walls.

Some of the experimental vineyards have already been grafted and the rest will be grafted in due time.

3. Government Experimental Vineyards

These Vineyards adjoining the Fruit Nurseries were laid down in 1963.

One vineyard comprises about 21 varieties of vine grapes and 18 varieties of table grapes. The main purpose of these trials is to see what varieties are best suited to our soil and climate as well as to production. Besides different systems of pruning and tressing serve as a demonstration to farmers.

Public Gardens, Plantations and Afforestation

1. Villa Rundle Public Gardens, Victoria

These gardens, which cover an area of 4 acres, are the only recreational grounds in Victoria. They were duly attended to all the year round.

A great number of annual and biennial flowers, as well as many flowering bulbs, were planted in these gardens making a wonderful display of colour especially during Spring and Autumn.

These gardens are visited, all the year round by the general public and tourists alike. Thousands of

flowering../..

flowering plants are annually raised in these gardens for use by the Department or to be sold to the general public.

The Gozo Agricultural and Industrial Show is held annually on the 15th August in these gardens.

2. Ornamental Tree Nurseries
"Dawwara and Kercem"

These are the only two Nurseries in Gozo where demand by the public for ornamental plants, shrubs and trees is met after supplying our Departmental needs. The Nurseries are very often visited by tourists and other visitors alike. Advice by the gardening staff is given on the spot.

During the year no fewer than 25,000 ornamental trees and shrubs, as well as flowering plants, were propagated in open ground and in pots. Different kinds of cuttings were rooted in the Two Mist Propagation Houses which are to be found in the Dawwara Nursery. The system of rooting and the rooting media have been found extremely satisfactory mainly because of the fact that considerable time is saved in propagating plants in comparison with the orthodox systems of propagation.

3. Public Plantations

All plantations along public roads, flower-beds and other open spaces were duly attended to as regards strutting, hoeing, watering and pruning.

It is the policy of the Department to embellish our Islands with a larger number of trees and with this in mind, every endeavour was made to add more trees in newly constructed or widened roads, flower beds and other open spaces.

The total number of trees and shrubs, added or replaced, was the following:-

Number of trees added	-	107
" " shrubs added	-	3129
" " trees replaced	-	474
" " shrubs replaced	-	391
Total		4101

comprising../..

comprising the following kinds, namely:-

Ficus, Tamarix, Ailanthus, Oleander, Morus, Jacaranda, etc.

4. Afforestation

About 4 acres of land were this year planted with olives and carobs. Another 4 acres were being prepared for planting out in due course.

Afforestated lands in Gozo now amount to over 30 acres with over 7000 trees.

Animal Health and Husbandry

1. Disease Eradication Scheme

T.B. and Brucellosis Testings under the Disease Eradication Scheme were continued during the year.

Constant advice was given to farmers about diverse precautions by way of vaccination.

About 15,000 dozes of Fowl Pox Vaccine were distributed to farmers at a nominal price.

2. Civil Abattoir

The Civil Abattoir was always looked after as regards to cleanliness and maintenance.

Number of livestock heads slaughtered at the Civil Abattoir within and out of visit during the year amounted to 4937 and 296 respectively.

3. Government Livestock Centre

This Centre, which is mainly kept as a stud Centre, is providing Gozo farmers with good stud livestock for their servicing needs. Servicing of livestock is free and a great number of farmers avail themselves of this.

An experiment with the aim of increasing the milking capacity of local sheep is now in its sixth year. Encouraging results have been achieved so far. Suffice it to say, that the average production of milk per ewe per annum, at the beginning of the experiment was 55 gallons. In 1967 the milk production reached to 90.6 gallons per ewe.

The../..

The livestock at the Centre comprises:-

Swine ...	...	...	2 boars			
Bovines ...	...	...	2 bulls			
Equines ...	...	...	1 horse			
Ovines ...	...	...21	sheep			
...	...	...10	ram lambs			
...	...	... 6	ewe lambs			
...	...	... 1	ram			
...	...	... 1	billy goat			
Poultry ...	...	... 238	hens			
Rabbits California	3	Does	1	Buck	1	Suckling
" Flemish Giant	6	"	1	"	1	"
" N.Z.W.	17	"	7	"	31	"
" Local	17	"	7	"	31	"

4. District Rabbit Stud Centre at Nadur

This Centre was well kept during the year and farmers availed themselves of this service.

The number of services during the year totalled 548.

5. Crops

Several crops have been grown on lands adjoining the Government Livestock Centre and other lands. The crops were mostly grown for feeding the livestock on the Government Farm.

Crop production amounted to:-

300 qantars of Lucerne
75 'Hmiel' dry clover
56 qantars mangold

EXTENSION SERVICE

1. Field Work

More than ever, farmers have realised the necessity of asking for advice on several problems which they have to face. This section, with the limited technical staff available, tried to put its whole services at the disposal of our farmers.

Various../..

Various experiments carried out by this section, are watched by farmers eager to witness new techniques. Results of these experiments are passed on to the farmers through several media.

Visits and inspections by the Extension Service in Gozo include:-

a) Weekly inspections of all private glasshouses in Gozo.

b) Daily visits and inspections to livestock breeders in connexion with health management and disease.

c) Constant inspections of model fruit orchards and experimental vineyards on privately owned lands.

d) Inspections of Poultry Units.

e) Calls from farmers for advice on the spot.

f) Inspection on the construction of calf pens, pig units, etc.

g) Distribution of sorghum for pigs, milk substitutes and other materials.

2. Financial Assistance to Farmers

The following number of farmers benefited from Government financial assistance during the year:-

a) 50 farmers were given Loans and Grants for the purchase of a Rotary Cultivator.

b) 37 farmers received a grant of £60 each for the construction of a calf pen.

c) 2 farmers received Loans and Grants for the construction of a pig unit.

d) 1 farmer received a loan and grant for repairs to his farmhouse.

e) 37 farmers received 45 bags of 32 rot. each of Milk substitute at half price.

f) 37 farmers received 45 bags of 64 rot. each of calf pencils at half price.

g) 74 farmers received Incentive Grants for the purchase of Onion seed.

3. Fertile../..

3. Fertile Soil (Preservation) Ordinance, 1935.

The provisions of this Ordinance were enforced and every measure is taken by this Section to ensure that soil is preserved.

The following data were collected during the year:-

Applications received	221	
Inspections carried out on new building sites	46	
Soil removed from Private sites	852	cubic yards
Soil removed by Public Works Dept.	26000	" "

The soil removed was utilized for:-

a) Construction of back gardens
b) Reclamation of lands at back of buildings
c) Reclamation of Government owned lands
d) Newly constructed flower beds

4. Plant Pathology

Our team of Plant Pathology Operatives is always kept busy throughout the year. Most farmers make use of this contract spraying scheme.

The following works were carried out during the year:-

1) 470 Citrus trees were treated against Iceria, Scale insects, Aphids and Med. Fruit Fly.
2) 45 tumoli of vines were treated against Powdery Mildew.
3) 64 tumoli of potatoes were sprayed against blight.

Treatment../..

Treatment on Government Lands

Fruit trees	103
Ornamental trees ...	580
Tomatoes, Cucumbers etc., etc.	

Gozo Agricultural and Industrial Show

This traditional event was again held successfully this year on the 14th and 15th August, 1967. This show attracts a great number of farmers both from Malta and Gozo and many tourists as well.

This year's number and high standard of exhibits were note-worthy. Both His Excellency the Governor General and the Hon.Minister of Trade, Industry and Agriculture presided at the Prize Giving Ceremony.

CHAPTER XIII
CO-OPERATIVES DIVISION

The Co-operative Section is entrusted with the registration and supervision of Co-operative Societies as required by the Co-operative Societies Ordinance and Regulations of 1946. The main duty of the Co-operative Section at present is the auditing of the Societies accounts. Direct supervision is continually exercised with a view to ascertaining that registered societies are managed in conformity with the Ordinance and the Regulations.

One new society was registered in 1967.

Progress was made in the auditing of the accounts of co-operative societies. The current auditing of societies in operation was kept up-to-date and considerable progress was made in the audit of the back load.

Applications for financial assistance were considered by the Loans Commission. This Commission examined in detail the requests made by the Gozo Milk and Agricultural Producers, the Malta Milk Producers and the Agricultural Trading Co-operative Society and funds where allocated to each of these Co-operatives in view of the existing funds.

Financial assistance was advanced as shown hereunder:-

Co-operative	Purpose	Loan	Grant	Total
		£	£	£
The National Co-op. of Poultry Breeders Ltd.	Egg-grader	1,260	840	2,100
The Safi Agric. Equip. Co-op. Society Ltd.	Rotary Cultivator	315	210	525
The Farmers' Wine Co-op. Society Ltd.	Winery	24,000	16,000	40,000
Total		25,575	17,050	42,625

The../..

The societies engaged in marketing agricultural products are the following:-

1	established	at B'Kara
1	"	" Marsa
1	"	" Rabat
1	"	" Zebbug
1	"	" Siggiewi
1	"	" Valletta

It is estimated that through these stalls about 21% of the total sales of agricultural products are made.

CHAPTER XIV
THE FISHERIES DIVISION

The services provided to the industry by this Division continued to function smoothly towards the encouragement of fishermen to keep to the trade and to increase their landings, thus making their occupation more remunerative.

Through the Marketing Scheme, operators are assured of a ready payment for their catches; the refund of duty on fuel lessens their financial burden, whilst the acquisition of modern equipment at the minimum of cost through the Fishing Equipment Supply Service run by the Division, provides the fishermen with the best material and reduces very considerably his operational expenses.

I. Fresh Fish Landings

The pelagic fisheries contributed mainly to making the supply satisfactory during the spring and summer seasons whilst the winter fisheries consisted mostly in pot fisheries, bottom long lines, trawling and anchored lines.

The winter fisheries (January/April) for resident and semi-pelagic fish remained more or less static in that, whilst the total for 1966 came up to 329,122 rotoli, that for the year under review was 334,995, accounting for an increase of only 5,873 rotoli.

The species mostly caught during this season were Bogue (Boops boops) and Horse Mackerel (Trachurus Mediterraneus) by pots; bottom fish - White Skate (Raja Alba), Hake (Merluccius Merluccius), Red Mullet (Mullus Surmuletus) and other varieties by the trawl net; other bottom fish, such as Dog-fish (Squalus acanthias), Angel shark (Squatina squatina), Rough shark (Centrophorus granulosus), Red Gurnard (Aspitrigla cuculus) and Red Bream (Pagellus centrotondus) by bottom long lines.

Anchored../..

Anchored lines were responsible for catching a number of Blue sharks (Prionace glauca) and Mako sharks (Isurus oxyrinchus). Trolling and gill-netting accounted for a considerable number of Frigate Mackerel (Auxis Thazard).

The landings for the Spring/Summer fisheries for 1967 were 499,202 rotoli against 505,665 rotoli for the previous year - a decrease of 6,463 rotoli.

During this season the landings are in the main made by the Lampara method and by Swordfish surface lines. The species caught consisted mostly of Bogue (Boops boops), Spanish Mackerel (Trachurus Mediteraneus) by the 'Lampara' or Purse Seine Net and Swordfish (Xipias Gladius) by the Swordfish surface lines.

The lampuki season during 1967 accounted for a catch of 1,038,933 rotoli against 798,503 rotoli for the previous year - an increase of 240,030 rotoli.

The species caught during this season consist mainly of the Dorado (Coryphoena Hippurus), the Pilot fish (Naucrates Ductor) and Little Tunny (Euthynnus Allettaratus).

Fresh fish importations for 1967 amounted to 30,486 rotoli, which shows a decrease of 29,373 from the previous year.

The total locally caught fresh fish landings in respect of 1967 came up to 1,872,730 rotoli against 1,633,290 rotoli for the previous year, an increase of 239,440 rotoli or 14.68%.

The total fresh fish landings, inlcuding importations were 1,903,216 rotoli for 1967 against 1,693,147 rotoli for the previous year.

A comparative statement showing catches with the relative wholesale and retail prices for the year under review and those for 1966 is attached at Table 18.

II.The../..

II. The Fishing Equipment Supply Service

During 1967 purchases of modern equipment for sale at cost or at subsidized prices to fishermen amounted to £6,523. They consisted in Nylon nets, Polyethelene Twine, Cordages, Fishing lamps, Lures, Floats and Hemp lines.

All the material was purchased by public tender and was subjected to tests for tensile strength, elongation and other properties before acceptance.

The sales during the year amounted to £9,417, stocks being available from the previous year and the subsidies amounted to £272.

A Table setting out all the details of purchases during the year is attached at Table 19.

III. Loans and Grants to Fishermen

During the year under review, Financial Assistance to fishermen was awarded to the amount of £26,724 in the form of loans at 1% interest and £17,004 in the form of grants.

A total of £18,071 in loans and £10,841 in grants were awarded for the construction of boats of over 30 feet in keel.

£1,346 in loans and £540 in grants were given out for the purchase of equipment, repairs and overhauls to craft and £1,240 in grants were awarded for the replacement of petrol/paraffin by diesel engines.

A total of £7,307 in loans and of £4,383 in grants were awarded for modifications to craft and for the construction or acquisition of smaller craft.

The awardees are in all cases made to contribute towards the project, thus encouraging them to take a personal interest in the success of the venture.

In the../..

In the case of construction and modification to craft, the beneficiary contributes 20% of the outlay and gets a loan of 50% and a grant of 30%; for the purchase of equipment and repairs a contribution of 30% has to be made by the applicant who gets the balance in the form of 50% as a loan and of 20% as a grant; for replacement of petrol/paraffin by diesel engines a grant of 40% is awarded, the balance of 60% being the applicant's contribution,

During 1967, 33 fishermen benefitted from the Loans and Grants Scheme.

Table 19 gives all the details of the Financial Assistance advanced during 1967, classified under the four heads of the scheme.

IV. Fuel Subsidies

This service, which was introduced to alleviate the fuel consumption costs of operators, contributes, in no small way, towards keeping fishermen more active in their trade.

A rebate of 1/6 in the gallon is allowed in respect of petrol and a refund of -/3 for every gallon of diesel oil consumed is given on presentation of the required receipts.

During the calendar year 1967 a total of £358 in rebate coupons was issued in respect of petrol and a total of £2,233 was allowed in respect of diesel oil.

V. Propaganda and Research

The weekly Sunday broadcasts over the Rediffusion continued to engage the attention of both professional and amateur fishermen, who are thereby kept informed of developments in the Fisheries Industry throughout the world and especially in countries bordering the Mediterranean where conditions are, more or less, similar to those obtaining in Malta.

A section../..

A section of the publication "L-Agrikoltura" was devoted every month to Fishery matters and the fact that the mailing list has continued to increase proves the interest the publication continued to generate in its readers.

Observation of the behaviour of certain species of fish in the wet room at the Fisheries building continued to be made. The aquaria were stocked with different types of fish which have been an indication of their resistance to restricted conditions. It was established beyond doubt that the Grey Mullet (Mugil Cephalus) can withstand all adverse conditions, including abstinence from feeding, for a considerable time. The Green Wrasse (Labrus Turdus) has also given evidence of its tolerance to life in enclosed conditions. The Blue Damsel, on the other hand, has shown itself unadaptable to aquarium life.

Other marine fauna, that have given proof of their resistant qualities, are the Sea-turtle (Tartaruga) and the Lobster (Locusta) which were kept in 100 gallon aquaria without showing signs of losing their original vitality for a number of months.

A documentary on the "kannizzati" fishery (anchored floats) for the "Lampuka" or Dorado (Coryphoena Hippurus) and the "Fanfru" or Pilot fish (Naucrates Ductor) was filmed from aboard the Fisheries vessel, the "Hannibal" and other craft between September and November and was ready for editing, titling and other processing in 1968.

Plans and specifications for the setting up of an aquarium were drawn up and a site at Sa Maison Gardens has been cleared for building.

VI. Foreign Contacts

In September, the Mediterranean Association for Marine Biology and Oceanology held its annual summer course and made use of the Fisheries Vessel "Hannibal" for practical work at sea.

Research../..

Research on Thermoclyne behaviour was again carried cut by Dr John Woods of the Meteorological Office, Brackneel, while light polarization and visibility trials were undertaken by Dr John Lythgoe of the London Institute of Ophthalmology. The results of these observations have been published for the Underwater Association of Malta by T.G.W. Industry and Research Productions Limited.

Mr Leslie Butler, the Chief of the Statistical Services Section of the F.A.O. Department of Fisheries called for four days at the Fisheries Division as part of a survey of the collection of fishery statistics in Mediterranean.

Two Algerian Biologists, Messrs.M.Marinaro and M.Benkara, carried out, in December, studies in the distribution of Sardine eggs in local plankton, the "Hannibal" being made available for the purpose. These scientists made these studies, the results of which will be published, on behalf of the Algiers Institute of Oceanography.

VII. Construction works

With the scope of increasing port facilities in fishing harbours, a number of projects were continued. In Marsaxlokk the widening and extension of moles and piers were proceeded with; in St.George's Bay a 250 foot breakwater was completed, in Marsaskala a part of the mole which had collapsed was in the process of reinstatement and at Bugibba the construction of a breakwater was continued.

Minor works and improvements were carried out all along the coasts of Malta and Gozo where necessary. In Marsaskala a new slipway was constructed and a landing pier extended. At Wied iż-Żurrieq a mole was blasted out of the rock face and concreted. In Gozo dredging

of the../..

of the approaches to the slipway at Mgarr was carried out and slipways were constructed at Marsalforn, Qbajjar and Xwejni.

The maintenance and repairs, besides other works in all bays and anchorages used by fishermen were also attended to as necessary.

VIII. General

The Division continued in its efforts by administrative, technical and extension services towards the solution of the problems of fishermen and towards encouraging them to make their efforts more productive.

The "Hannibal" besides being utilized for fisheries and for Customs patrol, was made available for laying the "kannizzati" sites and for salvaging craft damaged by the heavy storm of the 12th December of this year.

Cooperation with the services towards alleviating the inconvenience to fishermen, through service gun practice and manoeuvres, was improved and liaison with other Departments for the provision of amenities in fishing harbours was kept up satisfactorily.

Table 1

1. WEIGHTS

MALTESE	ENGLISH	METRIC
1 Ratal	1.75 lbs.	.79 kg.
1 Wiżna	8.75 lbs.	3.97 kg.
1 Qantar	175.00 lbs.	79.38 kg.
1280 Rtal	2240.00 lbs.	1016.00 kg.

2. MEASURE OF CAPACITY

1 Mondello	.66 gallons	3.03 litres
1 Garra	2.38 gallons	10.80 litres
1 Tomna	4.00 gallons	18.18 litres
1 Barile	9.50 gallons	43.19 litres
1 Salma	64.00 gallons	290.88 litres

3. MEASURES OF AREA

1 Qasba kwadra	5.25 sq.yards	4.39 sq.metres
1 Kejla	22.41 sq.yards	18.73 sq.metres
1 Siegh(10 kejliet)	224.10 sq.yards	187.35 sq.metres
1 Tomna (6 sighan)	0.28 acres	0.11 hectares
1 Wejba (4 tmien)	1.11 acres	0.45 hectares
1 Mundell (4 wejbiet)	4.44 acres	1.80 hectares

4. MEASURES OF LENGTH

1 Pulzier	.86 inches	21.33 cm.
1 Xiber (12 pulzieri)	10.38 inches	26.19 cm.
1 Qasba (8 tixbar)	2.29 yards	2.10 m.

5. MEASURE OF VOLUME

1 Xiber kubu	0.63 cu.ft.	17.97 dm^3
1 Qasba kuba	12.04 cu.ft.	9.20 m^3

NOTE: An acre is equivalent to 3.6 tmien
A Tomna is a square with sides 110 feet long.

Table 2

i) Farm Population - (1960 - 1966)

	1960/61	1962/63	1963/64	1964/65	1965/66
Wholetime farmers	7,330	6,858	6,737	6,476	6,283
Part-time farmers	8,815	8,751	9,124	8,281	8,615
Farm population not engaged in farming	20,175	21,001	20,411	20,523	21,032
Children	17,191	15,779	14,741	13,549	13,282
Total	53,511	52,389	51,013	48,829	49,212

ii) Area

Malta	94.870 square miles	or 60,717 acres
Gozo	25.899 square miles	or 16,575 acres
Comino	1.075 square miles	or 688 acres
Total	121.844 square miles	or 77,980 acres

iii) Land Distribution

MALTA	1960 Tmien	1961 Tmien	1963 Tmien	1964 Tmien	1965 Tmien
Agricultural Land					
Dry	107,980	105,543	100,687	99,613	96,750
Irrigated	5,528	5,470	5,585	5,287	5,048
Waste	19,511	18,860	18,064	17,712	16,627
Total	133,019	129,873	124,336	122,612	118,425
GOZO					
Agricultural Land ...					
Dry	29,121	27,866	27,642	26,626	25,781
Irrigated	741	689	624	560	533
Waste	1,845	1,757	1,953	2,037	1,821
Total	31,707	30,321	30,219	29,223	28,135
Total Malta & Gozo	164,726	160,194	154,556	151,835	146,560

TABLE 2 (contd.)

Table 3

GRANTS AND LOANS

PURPOSE	CASES £	LOANS £	GRANTS £
GENERAL SCHEME			
Rotary Cultivators	213	45,023	30,077
Glasshouses	25	17,185	11,442
Overhead Irrig. Equipment	23	5,035	3,347
Poultry Unites	1	1,595	1,063
Cloches	1	662	441
IMPROVEMENTS TO FARMHOUSES			
Repairs to Farmhouses	22	5,844	3,882
Construction/Repairs to Water Reservoirs	18	1,863	1,239
ASSISTANCE TO CO-OPERATIVES			
Buildings and Agric. Machinery	3	25,575	17,050
TOTALS	306	102,782	68,541

TABLE No. 4

SEED POTATOES IMPORTED FROM 18th NOVEMBER, 1966 to 21st DECEMBER, 1967

DATE OF RELEASE	NAME OF SHIP	ARRAN BANNER N. IRELAND	A. BANNER EIRE	ALPHA	GRAIGS ROYAL	PENTLAND DELL	DUTCH ARRAN BANNER PRECOSA
18.11.67	S.S. STENTOR						10 tons
29.11.67	S.S. ANEAS			10 tons			
29.11.67	S.S. RANADA	250 tons					
29.11.67	ditto	250 tons			15 tons		
29.11.67	ditto					5 tons	
9.12.67	S.S. JAN		395 tons				
11.12.67	ditto		50 tons				
11.12.67	S.S. MENNI EASSE	395 tons					
11.12.67	S.S. MONICA S.	350 tons					
12.12.67	ditto	350 tons					
21.12.67	S.S. HILDA WESCH			290 tons			
21.12.67	ditto			290 tons			
21.12.67	ditto			730 tons			
		1,595 tons	445 tons	1,320 tons	15 tons	5 tons	10 tons

TOTAL 3,390 tons.

TABLE No. 5

EXPORT OF SPRING POTATOES

DATE	NAME OF SHIP	BOXES	½ cwt bags	DESTINATION	TONNAGE
19. 4.67	S.S. LEONIDAS		13,600	ROTTERDAM	340 tons
19. 4.67	S.S. CITTA DI ALLESANDRIA	500		SWEDEN	12 tons 10 cwt.
21. 4.67	S.S. HENS ABB	320	20,000	UNITED KINGDOM	508 tons
22. 4.67	S.S. NOORD		17,200	UNITED KINGDOM	430 tons
24. 4.67	S.S. CITTA DI ALLESANDRIA	860		SWEDEN	21 tons 10 cwt.
25. 4.67	S.S. TARES		18,000	ROTTERDAM	450 tons
26. 4.67	S.S. ATLANTIER	270	20,000	UNITED KINGDOM	506 tons 15 cwt.
27. 4.67	S.S. CITTA DI ALLESANDRIA	500		SWEDEN	12 tons 10 cwts.
27. 4.67	S.S. STAINES		20,000	UNITED KINGDOM	500 tons
29. 4.67	S.S. EOS	376	14,500	ROTTERDAM	372 tons 2 cwt.
2. 5.67	S.S. KAPILET KOSMY		12,873	ROTTERDAM	321 tons 16 cwt. 2 qrs
3. 5.67	S.S. CYPRIAN PRINCE		28,000	UNITED KINGDOM	700 tons
4. 5.67	S.S. MICKY SMITH	400	11,750	ROTTERDAM	303 tons 15 cwt.
4. 5.67	S.S. APOLLON	460	7,500	UNITED KINGDOM	199 tons
4. 5.67	S.S. DEMEZLI		15,000	UNITED KINGDOM	375 tons
7. 5.67	S.S. CICERO	191	21,000	UNITED KINGDOM	529 tons 15 cwt 2 qr
7. 5.67	S.S. WAREDT		16,347	UNITED KINGDOM	408 tons 13 cwt. 2qrs.
8. 5.67	S.S. ARGES		18,400	ROTTERDAM	460 tons
10. 5.67	S.S. KARNAK		25,000	UNITED KINGDOM	625 tons
12. 5.67	S.S. J. OSMAN PASA		13,000	ROTTERDAM	325 tons
12. 5.67	S.S. CIRCAS		18,000	ROTTERDAM	450 tons
13. 5.67	S.S. MACOS		14,510	ROTTERDAM	362 tons 15 cwt.
18. 5.67	S.S. KRISTAN SMITH		21,280	ROTTERDAM	532 tons
13. 5.67	S.S. ENGLISH PRINCE		22,945	UNITED KINGDOM	573 tons 12 cwt 2 qrs.
19. 5.67	S.S. ISLAND SEE		11,000	ROTTERDAM	275 tons
19. 5.67	S.S. PALMALIAN		14,800	UNITED KINGDOM	370 tons
22. 5.67	S.S. LEA		8,048	ROTTERDAM	202 tons 9 cwt.
27. 5.67	S.S. FLORIAN		17,098	UNITED KINGDOM	427 tons 9 cwt.
1. 6.67	S.S. NEVSHIR		3,731	UNITED KINGDOM	93 tons 5 cwt 2 qrs
		3,877 boxes	423,640 bags		10,678 tons 18 cwt, 2qrs.

UNITED KINGDOM	6,246 tons	11 cwt.
ROTTERDAM	4,394 tons	17 cwt. 2 qrs
SWEDEN	46 tons	10 cwt.
	[illegible] tons	18 cwt. 2 qrs.

TABLE No. 6

EXPORT OF DRY ONIONS 1967

DATE	NAME OF SHIP	DESTINATION	QUANTITY
19.6.67	S.S. CICERO	UNITED KINGDOM	681 tons 5 cwts.
23.6.67	S.S. NOSKINT	UNITED KINGDOM	488 tons 3 cwt 2 qrs.
23.6.67	S.S. MAYIS	ROTTERDAM	198 tons 3 cwt.
24.6.67	S.S. NISSOS TASSOS	UNITED KINGDOM	354 tons 13 cwt.
			1,722 tons 4 cwts. 2 qrs.

TABLE No. 7

SALES FROM PITKALI MARKETS

VEGETABLES	1965 WEIGHT Rtal	1965 VALUE £	1966 WEIGHT Rtal	1966 VALUE £	1967 WEIGHT Rtal	1967 VALUE £
Artichokes (G)	1,138,309	11,169	833,746	6,020	909,977	9,336
Artichokes (J)	107,388	1,687	90,622	2,376	90,008	2,207
Beans Broad	691,113	12,515	527,025	16,291	606,648	16,829
Beans French	57,902	2,644	80,196	4,940	83,154	4,888
Beetroot (Unt.)	160,392	1,656	147,948	1,510	103,411	1,769
Bellpepper	208,992	5,882	220,509	5,131	197,591	7,355
Broccoli	197	8	998	29	2,752	93
Brussels Sprouts	3,763	701	6,437	865	6,482	1,193
Cabbages	2,263,744	26,639	2,117,631	23,374	1,878,737	32,632
Carrots	15,015	203	13,597	106	14,243	146
Carrots (Unt.)	1,137,908	13,771	1,145,840	14,065	1,169,791	14, 957
Cauliflowers (T)	1,796,203	27,842	2,462,023	15,936	1,564,696	24,516
Cauliflowers (Unt.)	1,590,024	19,568	2,013,354	26,835	2,011,854	28,241
Celery	344,233	4,669	389,981	5,134	425,761	6,174
Centenary	1,232	23	22,602	42	2,690	45
Chickpeas	57,648	553	24,630	269	52,523	608
Cucumber	160,325	3,752	102,858	4,815	128,972	5,531
Eggplant	185,139	4,423	187,331	3,406	228,289	4,569
Endive	196,856	1,873	163,688	1,330	133,752	1,379
Garlic Dry	11,388	1,023	25,473	1,003	27,094	2,761
Garlic Green	91,016	5,076	172,780	2,818	180,961	6,101
Gourds	272,671	2,968	153,807	2,193	214,284	2,962
Fennel	619	9	953	11	205	3
Kohlrabi	1,376,018	16,776	1,256,956	14,814	1,375,286	18,044
Leeks	12,452	124	11,986	133	8,786	119
Lettuce	767,403	14,416	828,523	16,472	914,762	50,825
Marrows Long	492,030	4,257	340,449	5,228	398,094	4,313
Marrows Veg.	1,036,877	31,538	1,241,294	41,653	1,254,324	44,345
Mint Herbs	706	14	553	15	1,116	26
Onions Dry	672,555	18,219	1,014,194	23,075	783,691	24,359
Onions Green	635,304	9,000	643,496	6,142	345,331	5,099
Onions Pickles	5,440	128	2,218	50	-	-
Parsley	54,122	1,410	55,928	1,533	61,985	1,852
Potatoes Spring	3,689,443	81,615	2,425,607	81,002	4,485,187	88,127
Potatoes Winter	2,722,019	49,878	2,684,532	52,720	2,394,199	62,201
Pumpkins	1,126,006	16,100	1,109,038	17,045	833,379	21,731
Peas	162,952	8,076	188,072	10,206	188,732	9,300
Radishes	1,121	34	5,292	191	7,012	237
Seakle Beet	592	7	1,052	13	422	5
Spinach	231,029	4,514	252,654	3,910	274,301	6,080
Tomatoes Eng.	452,401	33,031	582,489	40,439	597,908	48,896
Tomatoes R.	749,010	1,574	960,887	17,927	1,197,790	24,994
Tomatoes O.	1,140,304	16,243	97,113	19,522	1,074,855	20,609
Turnips	908	12	996	12	89	1
		£455,602		£490,601		£605,458

TABLE No. 8

SALES FROM PITKALI MARKETS

FRUITS

FRUITS	1965 WEIGHT Rtal	1965 VALUE £	1966 WEIGHT Rtal	1966 VALUE £	1967 WEIGHT Rtal	1967 VALUE £
Apples	290,795	9,371	129,838	7,361	273,418	12,097
Apricots	2,448	290	19,909	1,658	1,321	123
Bambinella	7,719	690	6,487	674	28,652	3,102
Banana (Heads)	300	3	1,004	13	1,615	26
Blackberries	460	137	2,201	193	5,207	323
Cherries	151	51	-	-	209	64
Figs Dry	1,282	51	3,816	123	3,536	119
Figs Early	199,393	5,332	200,375	7,223	191,204	6,239
Figs Late	40,350	1,289	84,439	2,177	58,197	1,964
Grapes	686,043	20,424	464,543	17,467	572,396	22,210
Grapefruit	52	11	47	7	78	12
Lemon (Dozen)	125,003	6,648	106,020	7,194	90,783	6,862
Lemon Sweet (Dozer)	54	3	69	4	189	10
Medlars	548,872	12,808	18,955	666	23,883	892
Melons Sugar	545,872	12,558	477,133	14,388	522,209	15,802
Melons Water	483,253	9,416	239,828	6,199	294,979	8,933
Melons Winter	335,396	5,720	209,372	4,556	296,053	7,137
Mulberries	4,362	110	2,447	73	1,593	48
Nectarines	3,990	196	155	13	1,220	76
Olives	2,646	93	41	2	3,138	143
Oranges (Dozen)	41,138	5,635	55,169	6,380	48,170	5,580
Oranges Sweet (Dozen)	8,286	1,363	12,346	1,698	11,616	1,645
Peaches	1,086,406	30,674	77,274	8,119	828,003	37,553
Pears	10,160	791	42,070	3,039	32,678	2,079
Pears Prickly	37,682	264	56,947	406	33,390	241
Plums	45,178	3,649	9,819	1,217	72,631	5,744
Plums Cherry	292,964	8,421	176,377	12,508	476,748	11,642
Pomegranites	69,485	1,193	53,131	1,392	80,406	1,675
Prunes	104	5	-	-	434	26
Strawberries Eng.	94,271	16,271	70,423	12,806	86,241	14,774
Strawberries Local	541	293	485	438	1,041	553
Tangerines (Dozen)	9,466	1,229	18,872	1,361	9,609	1,159
		£143,203		£118,633		£168,853

Table 9

YEARLY ENUMERATION OF LIVESTOCK 1957 - 1966

YEAR	CAPRINES		OVINES		BOVINES		SWINE		EQUINES		POULTRY & RABBITS	
	MALTA	GOZO	MALTA	GOZO	MALTA	GOZO	MALTA	GOZO	MALTA	GOZO	MALTA	GOZO
1957	25,611	13,726	9,204	5,614	7,066	2,661	10,493	2,805	4,955	1,825	244,473	144,042
1958	23,743	13,201	9,233	5,778	7,626	2,172	12,381	3,981	4,748	1,827	252,588	157,307
1959	22,625	13,246	8,649	5,616	7,429	2,107	12,094	2,701	4,587	1,757	249,502	131,840
1960	21,010	13,678	7,909	5,107	7,206	2,172	11,217	2,829	4,422	1,698	264,515	132,5[illegible]3
1961	18,587	12,425	7,190	4,413	6,282	1,809	12,507	3,885	4,290	1,603	264,320	148,983
1963	17,225	13,083	6,424	4,538	6,566	2,013	12,414	3,343	3,978	1,619	280,353	144,283
1964	16,438	12,741	6,518	4,709	6,001	1,986	10,428	2,990	3,833	1,500	322,528	119,769
1965	14,818	11,164	6,419	4,066	5,384	1,874	12,217	2,949	3,582	1,362	355,186	140,383
1966	=	=	=	=	=	= NOT YET AVAILABLE	=	=	=	=	=	=
1967	=	=	=	=	=	= NOT YET AVAILABLE	=	=	=	=	=	=

TABLE No. 30

DISEASES AND OTHER CAUSES OF UNSOUNDNESS OF MEAT DURING 1967

DISEASE	CATTLE	PIGS	SHEEP	GOATS	LAMBS	KIDS	EQUINES	TOTAL
ENTERITIS		2						2
NEPHRITIS				1				1
PERITONITIS	1	4						5
PNEUMONIA	3							3
PUTREFACTION	4	5	2	2				13
SWINE FEVER		1						1
SEPTICAEMIA			4	1				5
TUBERCULOSIS (GENERALISED)	1							1
TOTALS	9	12	6	4				31

N.B. Cows that are positive reactors to the Tuberculin Test are not included

Table 1.

MALTA

VACCINATION OF PIGS AND INOCULATIONS OF POULTRY DURING 1967

MONTH	POULTRY		SWINE	
	FOWL PEST	FOWL POX	SWINE ERYSIPELAS	SWINE FEVER
JANUARY	450	6,424	371	1,388
FEBRUARY	435	4,180	315	1,178
MARCH	-	2,250	252	1,280
APRIL	175	3,463	248	2,840
MAY	200	7,985	843	3,383
JUNE	100	4,600	460	2,599
JULY	800	5,235	421	2,067
AUGUST	1,700	6,420	596	2,083
SEPTEMBER	1,200	3,565	438	2,325
OCTOBER	500	4,630	496	3,141
NOVEMBER	200	8,940	414	1,593
DECEMBER	-	4,522	229	1,216
TOTALS	5,760	62,214	5,083	25,093
GOZO				
JANUARY	-	300	-	57
FEBRUARY	-	800	-	784
MARCH	-	2,600	41	350
APRIL	-	600	137	533
MAY	-	5,700	117	864
JUNE	-	500	-	825
JULY	-	-	-	437
AUGUST	-	2,300	565	197
SEPTEMBER	-	1,200	-	76
OCTOBER	-	-	376	46
NOVEMBER	-	700	416	210
DECEMBER	-	300	96	310
TOTALS	-	15,000	1,748	4,689

Table 12

STOCK OF IMPORTED STORE CATTLE DURING 1967

MONTH	IMPORTATION		TOTAL IMPORTED	SLAUGHTERED		TOTAL SLAUGHTERED	BALANCE	
	BULLS	BULLOCKS		MALTA	GOZO		-	+
		STOCK ON HAND ON 1st JANUARY, 1967						2,317
JANUARY	-	489	489	539	4	543	54	
FEBRUARY	-	751	751	496	8	504		247
MARCH	-	475	475	566	14	580	105	
APRIL	-	599	599	476	17	493		106
MAY	-	1,600	1,600	538	19	557		1,043
JUNE	-	-	-	595	21	616	616	
JULY	-	897	897	570	23	593		304
AUGUST	-	308	308	557	22	579	271	-
SEPTEMBER	-	612	612	736	14	750	138	-
OCTOBER	-	636	636	661	24	685	49	-
NOVEMBER	-	939	939	571	16	587		352
DECEMBER	-	134	134	604	25	629	495	
TOTALS	-	7,440	7,440	6,909	207	7,116	1,728	4,369

STOCK IN HAND ON 1st JANUARY, 1967	=	2,317	
IMPORTED DURING 1967		7,440	9,757
SLAUGHTERED DURING 1967			7,116
STOCK ON HAND ON 1st JANUARY , 1968	=		2,641

TABLE No. 13

SLAUGHTERINGS DURING THE PERIOD
1st January to 31st December, 1967

MALTA

MONTH	CATTLE	PIGS	SHEEP	LAMBS	GOATS	KIDS	EQUINES
JANUARY	667	2,831	354	448	469	149	25
FEBRUARY	642	2,838	410	241	415	175	23
MARCH	730	3,366	450	418	464	294	28
APRIL	632	3,002	383	118	439	314	21
MAY	693	3,096	368	47	446	234	27
JUNE	747	2,933	351	54	430	154	31
JULY	763	2,338	284	22	396	107	29
AUGUST	822	2,471	286	34	399	48	28
SEPTEMBER	830	2,549	415	336	435	94	35
OCTOBER	858	2,610	422	1,370	412	42	33
NOVEMBER	761	2,599	360	1,359	479	102	47
DECEMBER	870	3,416	407	789	603	123	57
TOTAL	9,015	34,049	4,490	5,236	5,387	1,836	384
TOTAL WEIGHT	2,919,624	2,912,682	187,954	48,274	144,654	8,489	85,537
AVERAGE WEIGHT	324	85	41	9	26	5	223

GOZO

JANUARY	46	315	13	59	7	19	-
FEBRUARY	45	300	15	79	12	44	2
MARCH	53	279	14	59	13	175	1
APRIL	41	237	8	9	10	113	1
MAY	49	302	8	3	6	44	-
JUNE	54	293	5	2	10	31	-
JULY	52	236	3	3	8	8	1
AUGUST	60	211	4	5	7	2	-
SEPTEMBER	62	196	16	27	7	3	1
OCTOBER	60	190	19	205	9	11	1
NOVEMBER	63	186	17	177	7	10	1
DECEMBER	79	303	26	146	7	24	1
TOTAL	664	3,048	148	774	103	484	9
TOTAL WEIGHT	234,035	302,807	4,823	7,912	2,790	2,898	2,455
AVERAGE WEIGHT	354	98	32	10	27	5	272

MALTA

RESPECTIVE WEIGHTS IN ROTOLI OF ANIMALS SLAUGHTERED DURING 1967

TABLE NO. 14

MONTH	CATTLE	PIGS	SHEEEP	LAMBS	GOATS	KIDS	EQUINES
JANUARY	208,835	240,695	14,388	4,043	12,669	665	5,134
FEBRUARY	198,463	241,296	15,750	2,284	11,596	816	4,886
MARCH	238,852	285,275	17,988	3,901	12,538	1,352	6,230
APRIL	210,564	250,157	15,203	1,134	12,088	1,443	4,897
MAY	224,189	260,552	15,046	467	12,124	1,064	5,728
JUNE	237,229	244,092	14,983	587	11,496	651	6,634
JULY	251,115	199,912	12,092	209	10,551	492	6,655
AUGUST	252,366	211,314	12,328	330	10,532	254	6,553
SEPTEMBER	268,603	219,743	18,298	3,089	11,771	460	7,723
OCTOBER	289,328	235,849	19,188	12,405	11,317	218	8,057
NOVEMBER	256,350	228,037	16,538	12,408	12,671	492	10,541
DECEMBER	283,730	295,760	16,152	7,417	15,301	582	12,499
TOTAL	2,919,624	2,912,682	187,954	48,274	144,654	8,489	85,537
GOZO							
JANUARY	16,056	31,688	406	609	188	114	-
FEBRUARY	14,786	30,252	484	824	320	262	642
MARCH	18,088	28,719	468	611	348	1,060	235
APRIL	13,913	23,426	252	90	270	676	210
MAY	20,966	31,026	270	36	162	248	-
JUNE	19,350	29,104	166	20	294	179	-
JULY	18,156	23,518	110	30	218	48	260
AUGUST	21,129	19,708	132	52	202	12	-
SEPTEMBER	21,468	16,446	489	270	186	18	300
OCTOBER	20,523	18,996	632	2,078	242	66	320
NOVEMBER	21,590	18,454	576	1,805	202	60	270
DECEMBER	28,010	31,470	838	1,487	158	155	218
TOTAL	234,035	302,807	4,823	7,912	2,790	2,898	2,455

Table 15

i) CO-OPERATIVE SOCIETIES ON REGISTER AS ON 31st DECEMBER, 1967

Primary	
AGRICULTURAL PRODUCE	15 (a)
AGRICULTURAL EQUIPMENT	4
TAILORS (Supply)	1 (b)
MILK PRODUCERS	1
CONSUMERS	4 (c)
MILK & AGRICULTURE PRODUCERS	1
WINE PRODUCERS	1
EGG PRODUCERS	2
AGRICULTURAL TRADING	1
FISHERIES CO-OPERATIVE	1
Central	
AGRICULTURAL	1
TOTAL NUMBER OF SOCIETIES	32
MEMBERSHIP (Estimated)	3,200

(a) 3 in course of liquidation
(b) 1 in course of liquidation
(c) 2 in course of liquidation

ii) PRINCIPAL ITEMS OF ASSETS AND LIABILITIES OF CO-OPERATIV SOCIETIES, 1967

Liabilities:		
Shares	63,839	
Reserves and Provisions	15,347	
Creditors	118,176	
Dispoable Balances	4,206	
Loans	29,921	£231,489
Assets		
Immovables	137,107	
Movable and Stock	28,321	
Debtors	20,589	
Investments	4,676	
Cash in hand and at Bank	28,987	
Deficiency in Capital	11,809	£231,489

Table 16

LANDINGS OF FRESH FISH BY LOCAL BOATS

1958 - 1967

YEAR	WEIGHT IN TONS	WHOLESALE VALUE IN £
1967	1,463	346,009
1966	1,276	319,454
1965	1,279	334,351
1964	1,348	324,094
1963	1,491	283,206
1962	1,317	248,770
1961	1,350	236,601
1960	1,217	226,643
1959	1,040	200,729
1958	1,055	204,115

(RTAL)

SPECIES	JANAURY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
ACCOLA	-	-	-	-	-	390	447	416	-	-	-	-	1,253
ARZNELL/MUNQARA	8,103	4,535	15,116	30,586	16,140	2,552	680		-	-	7,346	-	85,058
BOLL/HAM/NAI	929	1,213	2,671	3,100	3,890	3,742	2,511	1,346	241	-	485	-	20,458
CERNA	243				796	1,388	931	933	521	-		445	5,257
DENTICI					553	256	411	252				502	1,974
DOTT/HAM	298		986	509	3,645	2,028	6,053	1,234					14,753
FANFRI									92,150	36,053	14,491	970	143,664
GALLINA	2,261	1,181	973		1,183	498	333						6,429
GAMBLI	2,424	3,730	2,772	4,015	2,953	2,300	1,815	1,767	2,170	210	1,259	1,651	27,066
HUTA KAHLA	1,657	2,338	3,201	2,543	978	582	944						12,243
KAHLI	275	206		325	358	1,080	2,778						5,022
KAVALLI					903	12,634	37,207	32,137	16,402				99,283
KLAMARI	3,279	954	745	299	1,135		520					211	7,143
LACCI			1,087	417	1,965	10,062	4,949	2,936					21,416
LAMPUKI								3,972	223,370	294,155	134,751	1,064	657,312
MAKKU							1,678	6,530	5,979	597	368		15,152
MAZZOLA	1,765	1,916	1,415	754	2,954	6,022	1,607	487				1,189	18,106
MORINA	649		583	251	1,717	2,105	1,245	607					7,157
MORUNNA							379						379
MULETT					235	250							485
PAGELL	1,820	794	680	379	1,118	265	536					690	6,282
PAGRI						890	779					268	1,937
PIXXIPLAMTU	769	206	917	846									2,728
PIXXISPAD				425	409	2,866	20,455	19,670	363				49,131
PLAMTU			220										220
QARNIT	5,313	2,276	2,415	1,386	3,172	3,031	3,480	862	919	289	1,399	3,994	28,536
SARGU	484	257	310		663	286	222						2,222
SAWRELL	9,292	704	2,133	1,034	1,179	15,734	24,550	6,350	2,620			2,158	65,754
SIRRAN	1,218	385	366		479								2,448
SPNOTT							236						236
TONN											700	1,851	2,551
TONNAGGI	448	3,734		228	245		338		60,302	23, 754	4,957		94,006
TRILL	2,595	4,176	2,900	1,213	2,123							238	13,245

FISH CAUGHT DURING 1967 (continued)

(Table 17 (contd.)

SPECIES	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
TUMBRELL	4,718	15,279	21,216	20,686	3,033	238			235	2,311	6,175	12,321	86,212
VOLPI	38,095	23,666	17,566	10,882	34,087	34,182	41,950	44,818	16,648	9,266	27,445	18,486	317,091
XILEP	618	413	299	261	924	580	1,101	460	238			726	5,620
XKATLU							281						281
ZAGHRUN		1,612	8,542	1,925	3,726	3,703	559						20,067
HUT IEHOR	1,945	3,931	1,892	1,252	1,973	2,929	4,214	2,710	1,147	436	311	1,703	23,443
TOTAL	89,198	73,506	88,975	83,316	92,533	110,593	168,589	127,487	423,308	367,071	199,687	48,467	1,872,730

YEAR	QUANTITY RTAL	WHOLESALE VALUE	RETAIL VALUE	AVERAGE RET.PRICE PER RATAL	QUANTITY RTAL	WHOLESALE VALUE	RETAIL VALUE	AVERAGE RET.PRICE PER RATAL	TOTAL QUANTITY RTAL
		£	£			£	£		
1966									
JANUARY	80,497	1[illegible],673	21,550	5/4	[illegible],672	851	1,211	5/2	85,169
FEBRUARY	70,348	13,932	17,959	5/1	1,520	316	430	5/8	71,868
MARCH	78,365	15,097	15,778	5/1					[illegible],365
APRIL	99,912	19,10[illegible]	24,822	5/-					99,912
MAY	114,799	24,983	31,970	5/7	1,197	359	508	8/6	115,994
JUNE	117,844	24,995	32,698	5/7	8,230	2,682	3,505	8/6	126,074
JULY	150,552	30,225	41,948	5/7	16,760	4,135	5,028	6/-	167,312
AUGUST	122,470	24,320	33,213	5/5	17,442	4,565	5,873	6/9	139,912
SEPTEMBER	266,038	51,604	68,236	5/2	880	256	322	7/4	266,918
OCTOBER	289,414	50,931	69,277	4/10					289,414
NOVEMBER	155,492	30,349	40,073	5/2	2,970	507	804	5/5	158,462
DECEMBER	87,559	18,242	23,481	5/5	6,190	1,190	1,989	6/5	93,749
TOTAL	1,633,290	3[illegible],454	425,015		59,859	15,233	19,670		1,693,149
1967									
JANUARY	89,198	18,[illegible]61	23,282	5/3	6,164	798	1,260	4/1	95,362
FEBRUARY	73,506	15,205	19,997	5/5	471	130	165	7/-	73,977
MARCH	88,975	17,363	22,975	5/2	642	205	257	8/-	89,617
APRIL	83,316	16,182	21,576	5/2	3,775	6[illegible]	975	5/2	87,091
MAY	92,533	15,550	20,[illegible]38	4/6	11,325	2,944	3,775	6/8	103,858
JUNE	110,593	20,920	28,666	5/2	1,662	684	809	9/9	112,255
JULY	168,589	30,558	43,246	5/2	940	314	400	8/6	169,529
AUGUST	127,487	23,709	32,63[illegible]	5/1	1,310	393	426	6/6	128,797
SEPTEMBER	423,308	89,203	108,620	5/2	2,837	916	1,135	8/-	426,145
OCTOBER	367,071	53,044	77,858	4/3	1,360	337	439	6/5	368,431
NOVEMBER	199,687	35,317	45,562	4/7					199,687
DECEMBER	48,467	9,888	12,873	5/4					48,467
TOTAL	1,872,730	346,009	458,159		30,486	7,231	9,641		1,903,216

LOANS AND GRANTS AWARDED TO FISHERMEN IN THE GALENDAR YEAR 1967

ITEM 1: CONSTRUCTION OF FISHING VESSELS OVER 30 FEET		ITEM 2: PURCHASE OF EQUIPMENT REPAIRS AND OVERHAULS		ITEM 3: REPLACEMENT OF ENGINES	ITEM 4: MODIFICATION TO CRAFT. CONSTRUCTION OF SMALLER CRAFT AND ACQUISITION OF SECOND-HAND BOATS	
LOANS	GRANTS	LOANS	GRANTS	GRANTS	LOANS	GRANTS
(50% of Outlay)	(30% of outlay)	(50% of outlay)	(20% of outlay)	(40% of outlay)	(50% of outlay)	(30% of outlay)
£1,625	£975	£ 66	£ 26	£252	£620	£372
2,595	1,557	240	96	172	700	420
565	337	187	75	140	300	180
3,600	2,160	113	45	240	220	132
3,026	1,815	240	96	242	450	270
3,331	1,998	170	70	194	275	165
2,679	1,607	330	132		1,175	705
650	390	£1,346	£540	£1,240	925	555
£18,071	£10,841				671	402
					550	330
					406	243
					240	144
					475	285
					300	180
					£7,307	£4,383
TOTAL £28,912		TOTAL £1,886		TOTAL £1,240	TOTAL £11,690	

Table 19

Table 20

AGRICULTURE

i) ORDINARY EXPENDITURE 1962/68

	A. PERSONAL EMOLUMENTS						B. OTHER CHARGES					
	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ACTUAL 1966/67	ESTIMATES 1967/68	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ACTUAL 1966/67	ESTIMATES 1967/68
Office	20,398	15,768	19,965	20,932	20,635	25,605	-	-	-	-	-	-
Advisory Service	4,971	6,019	6,816	6,814	6,797	7,736	-	-	1,381	1,791	1,831	2,000
Government Farm	5,619	5,764	5,620	5,453	4,776	6,171	41,917	37,118	36,100	38,266	37,657	38,515
Gardens, Plantations and Afforestations	29,617	29,430	31,148	31,881	30,138	32,185	27,922	27,997	27,342	29,437	32.596	33,808
Plant Pathology Viticulture and Oenology	2,590	2,586	2,554	1,871	1,573	3,092	13,475	11,797	11,752	11,459	12,645	13,395
Marketing	4,089	5,446	5,828	6,400	6,355	6,815	1,324	1,340	1,677	1,697	1,748	1,750
Veterinary Services	17,200	17,238	17,723	17,880	18,235	19,611	7,621	7,588	2,765	7,176	6,787	9,274
Fisheries	12,137	12,615	13,431	13,668	13,305	14,785	20,918	20,611	17,347	20,935	21,232	23,477
General Services	-	-	-	-	-	-	10,161	9,326	13,956	15,019	16,019	16,093
Subsidies	-	3,843	-	-	-	-	76,60[illegible]	72,871	86,857	78,158	100,355	84,475
	£96,571	98,709	103,085	104,899	101,814	118,00[illegible]	199,945	188,657	204,177	203,938	230,870	222,787

ii) Special Expenditure - 1962/68

ACTUAL 1962/63

Erection of a Cold Room at the Buskett Winery	£495
Agricultural Delegation to Israel	£787
	£1,282

ACTUAL 1963/64

Purchase of Livestock for Government Farm	500

ACTUAL 1964/65

Internactional Congress on Brucellosis	356
Training of a Veterinary Surgeon	70
Assistancegivena to M.V. Hannibal	810
	£1,236

ACTUAL 1965/66

Purchase of Livestock	877
Training of a Veterinary Surgeon	123
Grants to Fishermen	19,290
Repairs to Public Gardens	997
Electric Unit for Gozo Abattoir	49
Purchase of a duplicator	82
Adaptation Works of Premises at it-Tokk Gozo	467
	£21,885

ACTUAL 1966-67

Purchase of livestock for Government Farm	548
Repairs to Public Gardens	4,981
Expensees in connection with 2nd Session of the Working Party of the Water Resources and Irrigation of European Commissionen Agriculture	521
Repairs to Elec. Installation at Civil Abattoir	5,983
Installation of an electric Ref. plant at C.Abattoir , Gozo	683
Centralization of nurseries at Tal-Kmand	144
Purchase of Two Typewriters	63
Provision for wire enclosure at Livestock Centre, Gozo	200
	£13,123

ESTIMATES 1967 - 1968

Purchase of Livestock for Government Farm	1,000
Repairs to Public Gardens	5,000
Expenses in connection with Control of Stray Dogs	400
Expenses in connection with Research	300
Repairs to elec. install in Civil Abattoir Malta	642
Installation of an Elec. Refrig. plant at C. Abattoir Gozo	167
Centsalization of nurseries at Tal-Kmand	3,898
Purchase of a Rotovator	200
Purchse of a bowser	2,900
Replacement of a motor scooter	120
Purchase of a manual control panel	300
Construction of an animal shed at the C. Abattoir	2,000
	£16,927

iii) E. CO-OPERATIVES 1962-68

	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ACTUAL 1966/67	ESTIMATES 1967/68
Personal Emoluments	2,684	[illegible]	[illegible]	[illegible]	2,356	2,890
Other Charges	6,451	2,587	7,023	6,996	6,368	7,168
Special Expenditure	-	-	-	-	-	-
	£9,135	£9,125	£9,805	£9,357	£8,624	£10,058

iv) F. PITKALI MARKETS - 1962-68

	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ACTUAL 1966/67	ESTIMATES 1967/68
Personal Emoluments	18,776	18,791	19 113	20,179	20,643	20,976
Other Charges	3,128	3,929	3 869	3,185	3,938	4,052
** Special Expenditure	-	-	-	-	** 2,000	
	21,904	22,720	22,982	23,364	£26,581	25,028

** Grant to the Gozo and Agricultural Producers Co-operatives Society Ltd.

jgc

CAPITAL EXPENDITURE - AGRICULTURE AND FISHERIES

DETAILS OF EXPENDITURE	ACTUAL EXPENDITURE 1959/64	PLAN ESTIMATES 1964/69	ACTUAL EXPENDITURE 1964/65	ACTUAL EXPENDITURE 1965/66	ACTUAL EXPENDITURE 1966/67	ESTIMATES 1967/68
1. Cattle Disease Eradication Scheme	137,984	54,385	23,450	14,388	10,379	2,500
2. Animal Vaccination Scheme	19,944	1,056	-	941	-	-
3. Incentive Grants to Farmers	25,546	70,090	8,985	2,857	6,747	18,500
4. Expenses in connection with Experts	47,600	39,608	2,915	-	1,077	4,500
5. Training of Personnel Abroad	26,749	32,705	1,986	1,884	2,889	3,000
6. Adopted Farms	3,055	2,945	20	677	1,338	815
7. Grants to Farmers	51,399	100,000	13,707	30,038	38,055	20,000
8. Public Gardens, Plantations and Afforestations	98,850	68,243	10,000	14,385	10,427	16,000
9. Improvements to Public Gardens	1,309	8,691	8,515	157	20	-
10. Modernisation of Civil Abattoir, Malta (a)	17,696	604	118	403	-	-
11. Cattle Quarnatine Station	-	42,200	847	15,212	13,862	10,000
12. Equipping and Staffing Research Laboratory	-	53,317	827	737	2,282	7,000
13. General Development of Horticulture	-	211,332	3,960	30,094	49,761	39,900
14. Fruit Planting Incentive Grants	-	12,659	596	1,248	1,409	3,000
15. Development of Viticulture	-	17,824	1,223	4,608	3,206	4,000
16. Mobile Steam Sterlizing Units	-	11,606	-	-	-	1,200
17. Agricultural Produce Inspection Shed	-	24,792	-	-	10,631	5,968
18. Assistance to Co-operatives (Grants)	-	30,000	-	-	1,575	9,600
19. Improvements to Farmhouses (Grants)	-	23,000	-	3,436	2,811	10,000
20. Establishment of Agricultural Laboratories	-	12,132	879	1,300	4,204	4,400
21. Eradication of Swine Diseases	-	15,000	-	1,447	1,829	4,000
22. Purchase and Adaptation of R.N. Abattoir	-	2,000	-	40	969	770
23. Loans to Farmers	165,000	150, 000	20,049	44,397	55,218	30,000
24. Assistance to Co-operative (Loans)	-	45,000	-	-	2,013	2,400
25. Improvements to Farmers (Loans)	-	34,500	-	5,035	4,196	15,000
26. Equipping and Staffing Diagnostic Laboratory	-	40,177	-	2,964	6,042	10,000
27. Central Markets		136,833	-	-	-	15,000
Development of Pig Breeding Industry		19,500	-	174	6,518	13,453
TOTAL AGRICULTURE	£595,132	£1,260,199	£98,077	£176,457	£237,659	£250,106

FISHERIES :- (continued overleaf

Table 20 (contd.)

DETAILS OF EXPENDITURE (FISHERIES)	ACTUAL EXPENDITURE 1959/64	PLAN ESTIMATE 1964/69	ACTUAL EXPENDITURE 1964/65	ACTUAL EXPENDITURE 1965/66	ACTUAL EXPENDITURE 1966/67	ESTIMATES 1967/68
28. Grants to Fishermen	21,953	34,000	5,658	8,361	7,039	13,000
29. Improvements at Marsaxlokk	-	37,980	7,627	16,034	13,291	-
30. Provision of 2 winches at Marsaxlokk and Wied iz-Zurrieq	-	2,907	-	749	-	2,158
31. Construction of Moles	-	79,000	4,977	5,620	-	15,000
32. Extension of Moles at Wied iz-Zurrieq	-	11,605	326	1,395	1,595	1,350
33. Fishing Research	-	15,498	-	309	623	5,000
34. Sundry Works at Fishing Centres	12,000	25,320	5,680	9,741	6,608	5,000
35. Loans to Fishermen	30,875	51,000	5,977	11,665	10,789	21,000
36. Dredging of Inner part of Marsaxlokk	-	47,475	-	14	33,160	-
37. Building of Dwelling Units	-	64,988	-	8,753	16,102	21,500
c38. Expropriation of Lands and Old Fishponds at Marsaxlokk (a)	2	15,020	15,000	20	-	-
TOTAL FISHERIES	64,830	384,793	45,245	62,661	89,191	84,208
TOTAL AGRICULTURE	595,132	1, 260,199	98,077	176,457	237,659	250,106
COMPLETED SCHEMES						
Equipping for Crop Protection Spraying Service	8,031	1,769	1,769	-	-	-
TOTAL EXPENDITURE	£667,993	£1,646,761	£145,091	£239,118	£326,850	£334,314

(a) completed in 1965/66

Table 20 (contd.)

REVENUE 1962 - 67

	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ACTUAL 1966/67	ESTIMATE 1967/68
VII Fees of Office and Reimbursements						
A. Fees of Office						
Agriculture and Fisheries						
Fisheries						
24. Fees for Fish-hawker Arm Badges	10	16	15	12	7	15
25. Permits and Licences	43	38	38	40	60	60
Veterinary Services						
33. Abattoir Fees	19,006	16,693	15,105	15,078	16,124	16,000
Agriculture						
34. Licences, certificates, etc.	522	360	341	392	477	350
	19,581	17,107	15,499	15,522	16,668	16,425
B. Reimbursement (Fisheries)						
56. Sale of Fishing Equipment	8,296	9,959	6,998	7,569	8,855	9,000
57. Sale of Fish from experimental fishing Vessel	2,115	1,142	-	-	-	-
58. Commission on sales of imported fish	250	250	-	-	140	300
Agriculture						
88. Sale of vegetables from Government Farm	2,159	2,597	2,034	2,728	3,913	3,500
89. Sale of livestock from Govt. Farm	4,688	4,298	3,986	3,200	3,617	3,500
90. Sale of Dairy Produce	3,920	2,995	2,858	2,873	3,616	3,000
91. Sale of vine rootlings, etc. from vine Nurseries	11	10	2,858	2,873	-	10
92. Sale of trees, plants from public plant.	1,521	1,561	1,280	1,934	1,940	1,500
93. Sale of Fruit etc. from S. Anton Gardens	606	701	643	654	876	700
94. Sale of Fruit etc. from Buskett Gdns.	1,145	1,776	2,171	1,758	2,516	2,000
95. Sale of fruit etc. from Dar il-Ljuni G.	53	115	111	103	141	100
96. Sale of hatching eggs & Poultry from Government Farm	6,133	5,515	4,384	5,450	3,667	6,000
97. Sale of Honey	-	12	30	24	38	20
98. Inspection of Agricultural Produce	561	450	379	256	417	400
99. Sale of Wine	747	258	144	-	-	10
01. Service by skilled Personnel of the Distribution to Farmers	2,760	4,146	2,481	2,507	2,127	2,500
VETERINARY SERVICES						
02. Maintenance of dogs kept under observation	78	130	131	254	175	150
MISCELLANEOUS REIMBURSEMENT						
13. Miscellaneous	638	408	698	1,239	1,038	550
Sale of Poultry Vaccine				161	221	500
	35,303	36,146	28,788	30,737	33,298	33,740
XII INTEREST						
14. Interest on Loans	2,198	2,824	2,770	2,499	3,416	3,000
XII PENSION CONTRIBUTIONS						
1. Contribution under the Widows & Orphans	1,080	1,115	1,218	1,226	1,171	1,200
XVI MISCELLANEOUS RECEIPTS						
2. Miscellaneous	189	172	653	23	578	500
5. Repayment of Loans	18,971	19,155	27,373	35,247	34,133	35,000
	19,160	19,327	28,026	35,270	34,711	35,500
SUMMARY						
VII. A. Fees of Office	19,581	17,107	15,499	15,522	16,668	16,425
B. Reimbursement	35,303	36,166	28,788	30,737	33,298	33,740
XII Interest	2,198	2,824	2,770	2,499	3,416	3,000
XII Widows and Orphans (Pension Act 1927)	1,080	1,115	1,218	1,226	1,171	1,200
XVI. Miscellaneous Receipts	19,160	19,327	28,026	35,270	34,711	35,500
	77,322	76,539	76,301	85,254	89,264	89,865

TABLE 21

VALUE OF AGRICULTURAL EXPORTS

	1959 £	1960 £	1961 £	TOTAL 1959/61	1962 £	1963 £	1964 £	TOTAL 1962/64	1965 £	1966 £	1967 £	TOTAL 1965/67
POTATOES ...	271,665	371,000	379,872	1,022,537	371,000	486,724	246,530	1,104,254	368,229	466,986	375,503	1,610,718
ONIONS	23,897	19,000	14,411	57,308	71,000	51,938	55,915	178,853	28,227	154,013	77,297	259,537
CUT FLOWERS, FOLIAGE AND PLANT CUTTINGS	50,077	57,202	82,136	189,415	130,000	198,361	181,243	509,604	221,290	260,549	298,188	780,027
SEEDS AND BULBS	3,415	2,959	3,986	10,360	1,617	6,323	8,702	16,462	2,918	4,354	4,628	11,900
TOMATOES	50	21	211	282	900	4,677	4,555	10,132	5,063	26,583	20,535	52,181
ANIMALS LIVING	120	1,276	1,993	3,389	3,426	2,627	6,272	12,325	11,020	29,216	20,096	60,332
				£1,283,291				£1,831,810				£2,886,156
WINE	17,727	49,491	55,418	122,030	148,000	241,256	299,639	688,895	299,974	334,091	311,274	946,139
TOMATO PUREE'	301	140	-	441	-	9,623	10,257	19,880	21,524	53	2	21,579
TALLOW ...	4,210	17,862	6,750	28,822	600	11,960	6,553	19,113	3,700	2,850	300	6,850
WOOL RAW	4,170	3,300	2,150	9,620	1,172	4,824	2,390	8,386	2,610	5,483	317	8,410
HORSE HAIR	61	500	420	981	507	720	850	2,077	180	310	690	1,180
HIDES AND SKINS	89,655	49,017	59,807	198,479	40,693	52,697	34,828	128,218	39,057	34,542	37,862	111,461
BONES AND HOOFS	-	600	675	1,275	300	700	-	1,000	-	-	-	-
				£362,254				£867,569				£1,095,619
				£1,645,545				£2,699,379				£3,981,775